REPORT RESUMES

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PROCEEDINGS OF THE STATEWIDE JUNIOR COLLEGE CONFERENCE (2ND, PEORIA, NOVEMBER 16-18, 1967).

BY- DARNES, G. ROBERT, ED.

ILLINOIS JUNIOR COLL. BOARD, SPRINGFIELD

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AN ADDRESS ON EXCELLENCE AND RESPONSIBILITY IN DEMOCRATIC EDUCATION OPENED THIS CONFERENCE. SUBSEQUENT SPEAKERS COVERED THE COMPREHENSIVE PROGRAM OF ILLINOIS PUBLIC JUNIOR COLLEGES, THEIR EVALUATION AND ACCREDITATION, COCURRICULAR ACTIVITIES AND STUDENT GOVERNMENT, STUDENT HANDBOOKS, DATA FOR SELECTIVE SERVICE BOARDS, A DESCRIPTION OF CALIFORNIA'S COLLEGE OF SAN MATEO AND ITS FULFILLMENT OF THE JUNIOR COLLEGE CONCEPT, EXPECTED ACCOMPLISHMENTS IN THE FUTURE OF ILLINOIS JUNIOR COLLEGES, CURRICULAR ADMISSION REQUIREMENTS WITHIN THE OPEN-DOOR POLICY, AN EXPLANATION OF THE AMERICAN COLLEGE TESTING PROGRAM, INITIATING AND ADJUSTING CURRICULUMS TO FACILITATE THE SUCCESS OF THE NON-TRANSFER STUDENT, SELECTION OF STUDENTS FOR THE VOCATIONAL-TECHNICAL CURRICULUM, ARTICULATION PROCEDURES WITH BOTH HIGH SCHOOL AND 4-YEAR INSTITUTIONS, THE DEVELOPMENT OF CORE SCIENCE COURSES USABLE IN DIFFERENT HEALTH OCCUPATION CURRICULUMS, A BRIEF COMMENT ON QUALIFICATIONS FOR HEA TITLE I FUNDS, VARIOUS FACETS OF INNOVATION IN INSTRUCTION, THE USE OF TV, PROGRAMMED LEARNING, THE PLATO COMPUTER-CONTROLLED SYSTEM AND OTHER AUTOMATED TEACHING AIDS, INSTITUTIONAL RESEARCH FOR INSTRUCTIONAL EVALUATION, THE DEFINITION AND ROLE OF THE FACULTY SENATE, ADULT EDUCATION, THE FUNCTIONS OF STUDENT GOVERNMENT, A PROPOSED UNIFORM ACCOUNTING MANUAL WITH A CHART OF ACCOUNTS AND UNIT COST STUDY, AND PROVISIONS OF THE RETIREMENT, DISABILITY, AND PENSION SYSTEM. (HH)

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JC 680 169

ILLINOIS

Land of Lincoln

PROCEEDINGS

SECOND

STATEWIDE JUNIOR COLLEGE CONFERENCE

Sponsored By

ILLINOIS JUNIOR COLLEGE BOARD

and

ILLINOIS ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES

NOVEMBER 16-18, 1967

Illinois Junior College Board
544 Iles Park Place
Springfield, Illinois 62706

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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SECOND ANNUAL

STATEWIDE JUNIOR COLLEGE CONFERENCE

Sponsored By The

ILLINOIS JUNIOR COLLEGE BOARD

And The

ILLINOIS ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES

Editor

G. Robert Darnes

November 16-18, 1967

Peoria, Illinois

UNIVERSITY OF CALIF.
LOS ANGELES

APR 15 1968

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

PREFACE

The opportunities for board members, administrators, faculty and students to come together for purposes of discussing problems and identifying plans for the continued development of junior colleges and their programs are always limited in both number and length of time. This second statewide conference, co-sponsored by the Illinois Junior College Board and the Illinois Association of Community and Junior Colleges, was designed to provide the opportunity for the divisions of the association to conduct their business affairs, and to make it possible for the Illinois Junior College Board and members of its staff to join with representatives from the campuses throughout the State of Illinois in an effort to continue with both the solving of present day problems as well as making future plans for the continued development of the State System of Junior Colleges.

The private junior colleges, a very important segment of higher education in the State of Illinois, were also present. Those who planned the conference earnestly hope that this opportunity for representatives from both public and private junior colleges to come together and share ideas proved profitable for all.

The stimulation given by the three general session speakers was exciting and provided continued leadership for the discussions throughout the conference. This publication is an outgrowth of the conference and the remarks of all participants have been edited for this publication trusting that they reflect the perceptive analyses, theories and projections intended.

Appreciation is expressed to Illinois Central College for its efforts in successfully hosting the conference.

G. Robert Darnes
Associate Secretary
Illinois Junior College Board

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PROGRAM

Thursday, November 16, 1967

KICKOFF DINNER

Presiding . . . . Eugene McClintock
President, Kaskaskia College
President, IACJC

Special Music . . . . Illinois Central College Chorus
Ronald D. Pexton, Director

Introduction of Speaker . . . . Turner H. Trimble
Special Assistant to the Chancellor, Chicago City College
IACJC Legislative Committee Chairman

Address . . . . The Honorable Hudson R. Sours
State Senator, District II, Peoria

I suppose I should probably discuss tonight not only the degree of responsibility of the local board to our necessarily peculiar local needs which could be furnished and supplied by our junior college, but also perhaps the autonomy that ought to be inherent in the conduct and operation of the junior college. We should also discuss the vocational-technical aspects of the curriculum, the programs offered and related subject matter. The matter of continuing education in cooperation with business and industry, and the degree of cooperation which must be accomplished with private junior colleges is important.

Many lay people seem to derive pleasure in tinkering with the educational system at all levels. We do not need handymen and jacks of all trades, but we do need professional people who understand precisely the goals and the means by which those goals may be attained. Many keen minds today feel that our society has become a society of grasshoppers rather than ants; a society of bourbon grasshoppers unable or unwilling or out of touch with the ancient ability of people to produce for themselves, glued to television screens, depending on pensions and social security and other "hand-outs".

We cannot educate a generation of people to all kinds of subsidies from government to private industrial subsidies without springing a leak somewhere in their moral character, and the local board of our junior college ought to realize, and I am sure it does realize, the degree of responsibility to our local needs. Right at this time we have a greater variety and higher taxes than ever before, even when related to far greater production, and the junior college system in these times is going to be a continuing and severe expense to the taxpayer. That is another reason why there should be the highest degree of autonomy and responsibility exercised and accepted by our board of the junior college. The board will also have to accept fiscal responsibility and I am sure they realize that there are eternal rules of economics which may not be violated except at the peril of the institution itself. Oppressive taxes result sometimes even in prosperous times from expenditures of governmental activity that sometimes the majority of the people do not want. All of us cannot have a public park or private swimming pool. Some of us have to go through life with a bathroom. If only considered from the tax angle, if we are going to have a successful junior college operation, the citizenry should put the ultimate in reliance on the board and the administration of our junior college. In return the institution and all of its representatives and employees must accept the highest degree of responsibility.

Until recently in our United States the professor at the college and university level never attained the exalted and respected position held by his European counterpart. So has it been with the public school teacher. Only quite recently has the general public developed due respect for men and women who worked on a matter that seemed so casual as education. All this is changing and the professor and the teacher are now figuring less in humorous remarks which is a long way from the caricature of the absent-minded eccentric professor timing his boiling watch holding an egg in his hand!

But, by and large, the teaching profession is a dignified, learned and superior class that is frugal, cultivated and possessing mental poise that comes from study and scholarship and dedication. Of those three qualities, perhaps the last, dedication, looms as the most important. With the changing times academic people are emerging into public officialdom, perhaps a pity, because academic life can be, and is often, among the happiest. The unhappy ones are those unfortunates in every profession and vocation when they discover that they have mistaken their talents and inclination and become apathetic in their performance and look at the great teaching profession as a heavy, dull routine. Sooner or later they become afraid of the world. This situation cannot be avoided and the answer is not a teacher's union. Scholarship is never democratic in that sense or even by way of definition; in fact, no democracy can persist very long without creating an aristocracy of ability, integrity and solid scholarship, if only to protect itself from the decay and decline and extinction.

Not all students in our local junior college either desire nor have the capacity for nor are even inclined to enter the learned professions, or other occupations. Many have technical or vocational skills which are latent perhaps, but which can be developed so that they may continue in obtaining a vocational or technical background which will fit them in that type of human endeavor. Thus they will be able to maintain and support their families, become owners of property, and enjoy some of the luxuries as well as the usual necessities of day to day living. The most careful screening of those possessing such aptitudes would be at the head of the important list of inquiries into their application. This was true in the last century where grocers became bankers, where persons for example in

Peoria who operated livery stables sat on bank boards and entered into the general commerce and mercantile life of our community. Certainly, they should not be overlooked, and might even go on to greater achievement than that which might be circumscribed by a vocational-technical level.

Continuing education is certainly more than a fad. We have been living in an era of science. Quite naturally our college and graduate level administrators have given scientific departments a disproportionate degree of encouragement and support, and certainly in great disparity to the art of living the good life, the humanities of the liberal arts curriculum, the historian, the philosopher and all those devotees of learning formerly called "useless" and without a dollar sign attached are on their way up again. There exists naturally the fervent hope of the eventual triumph of humane civilization. We must never forget that someone must study the louse, the flea, the tick and the little beasts under the microscope. They will all have latin names, cognomen and praenoman, and this aspect of the good life should not be overlooked in any continuing educational program for our citizens and residents who at a later time in their lives want to know something more about living itself. A heavy presumption is involved when one indites a field not his own. May I hasten to assure you that I am not looking down from Olympus; there are times when a amateur, perhaps by his shocking insolence, can annoy or provoke the professional into action. We must not forget that Shakespeare antedates Freud, and there are mechanisms of depth psychology each time we re-examine Hamlet, Richard III, Titus Andronicus, or MacBeth. Both Schliemann and Wicklemann were self-taught Greek scholars. Schliemann found Troy after 25 centuries by simply locating Troy out of Homer's simple direction in Homer's book.

Perhaps at the risk of repeating a cynical saying, every country, even down to the last singular school district or junior college organization, gets the curriculum and teachers it deserves. But I am not convinced that justice is either that effect or poetic. I do know that our judges are rarely better than the bar from which they were elected or selected, that great concert artists are the inevitable product of the best music teachers, continuing education could be the jewel in the crown of our local junior college.

Now there remains the question of working with and cooperating with other private junior colleges. Private institutions generally have shown intense regard for excellence, and this is true in spite of national and state blueprints on education. National and state scholarship aid, foundations and educational trusts do not in themselves generate the discriminating energy necessary to accomplish excellence at the junior college level. They may stimulate local initiative but can never be a substitute for it.

The public junior college system, it is hoped, will work with and cooperate with the private junior colleges in order to get a job done. Today, we have licensed ignorance, certified ignorance, membership ignorance, authorized ignorance, and ignorance is still ignorance even if ordained in a dark suit! There still remains much to be done in eliminating a deficit of excellence, something with which the privately endowed institutions have been identified since their very beginning. The platonic triology of truth, beauty and idealism enriches the lives of all partakers and makes the far better citizen, and this is a long way away from what we observe in the streets today.

Of what possible value are our title deeds, all properly notarized, supported by an abstract of title or a title policy, with United States documentary stamps affixed and recorded in the recorder's office, if we have much more "burn baby burn"?

Of what possible utility are our departments of fire and police if gigantic sit-ins stop the normal life of a metropolitan city? We are now to be treated to bigger and better riots in the winter. Carmichael is being protected by his color, and in Franklin Park, he stated, "We will control things in our communities by any means necessary."."If Hunky gets his store bombed out every Friday or Saturday, he's going to have to sell it to us." The street riots now apply guerrilla tactics. Where law ends anarchy begins, and there will be some responsibility of the professoriat to inculcate better citizenship, for it is only in the time of quiet that great institutions can be built and basic rights guaranteed under our Constitution and the Bill of Rights.

No man living outside the jungle can be his own law, for if the learned philosopher can make his own law, so can the less able, the ignorant, and worst of all, the fool. When that time comes, we might just as well close the courthouse, send home the sheriff and his deputies, retire the policeman and fireman, declare the state's attorney vacant, let the judges resign, and then we have the perfect democracy! The jungle and the red tooth and the red claw of John Stuart Mill- - -a far cry from the Greek democracy and the days of Plato, for, a century or so after that time, Greece grovelled at the feet of youthful Rome- - -never again to contribute to the progress of mankind.

Executive Director's Report . . . . James D. Broman
Executive Director, IACJC

Senator Sours, Mr. Fowle, Dr. McClintock, members and guests. This evening I will give you only a brief report regarding the affairs of the Association. Since we met in Belleville last May, progress has been made towards the short, intermediate, and longrange goals of the Association. At the time of our Annual Meeting in May, we were all deeply concerned about legislative matters and agreed that top priority must be given to passing key legislation then being considered by the Illinois General Assembly. I will not attempt to enumerate the many bills which have since become law or describe efforts which made passage possible. However, I will call to your attention three pieces of legislation which add up to hundreds of millions of dollars in benefits for member colleges of the Association and the students which they serve.

One of the most important series of bills to become law was the student financial aid package making available this biennium almost $30 million in direct aid to students and expanding guarantees on student loans to fantastic proportions. This dramatic increase in student aid is expected to give needy students in Illinois unprecedented opportunities for higher education and it is hoped that much benefit will accrue to private colleges which wish to serve more students as enrollments increase.

For State System of Community Colleges, the $125 million authorization for campus construction through the Illinois Building Authority and the transfer to the State of Illinois of employer contributions to the University Retirement System have eased, in part, the increasing financial burdens of the local junior college districts and will make higher education facilities in the community, a reality rather than a dream. Even though community college construction will fall considerably short of actual needs in the next two years, the big step has been taken by the State of Illinois to fund construction at the 75% level set forth by the Master Plan for Higher Education.

At this time I would like to thank Mr. Fowle, Gerald Smith, and the entire staff of the State Junior College Board for their work in the past session of the General Assembly, and especially for the efforts made to increase the construction authorization to a more realistic figure. Although we were not successful in this effort, our position has been established and will be proved correct, I'm afraid, within too short a period of time.

I would be negligent if I did not recognize Turner Trimble, Chairman of the Legislative Committee, for his untiring work during the Legislative Session. As in years past, Turner's keen insight, wise counsel, and relentless effort played a key role in gaining support for our legislative program. Turner, the Association is again indebted to you.

Last June, as the Legislature was approaching recess, I gave considerable thought to establishing priorities for my activities in the months ahead. Two primary objectives emerged as vital to the continued existance and effective operation of the Association. One of these was the urgency for quickly and firmly identifying the Association in higher education; at all levels, local, state, regional and national.

Over the past four months, a major part of my time has been spent to accomplish this objective. What has it involved? In communities I have visited, it has involved meeting with local businessmen, public officials, other school officials, legislators from the area, and many others. At the state level, I have met personally with most top state officials; I have contacted every agency of state government involved directly or indirectly with education; I have visited each of the colleges and universities interested in the junior college movement; and I have followed the affairs of the State Junior College Board and the Illinois Board of Higher Education. At the national level, close working arrangements have been developed with other state junior college associations and with the American Association of Junior Colleges. I have met with representatives of many leading trade and professional associations whose support is essential to junior college programs. Members of the Illinois Congressional Delegation in Washington have been contacted as well as federal agencies with educational responsibilities.

An example of the acceptance which has been attained is my recent participation as a representative of this Association in the Seminar on Health Care Education held just last week in Springfield. The ten other participants in this two-day conference included the President of the National Academy of Science, the heads of medical education at Harvard, Indiana University, Temple University, Michigan State University, and top officials of the American Medical Association, the Department of Health, Education and Welfare and other federal agencies.

You should know also, that the Association is being called upon more and more by people of national stature in higher education, business and government. While these activities to build the Association's image have taxed my personal energies and required much time and travel away from my family, I am convinced that such exposure and identification is necessary to the continued success of the Association and will benefit the organization not only in the months ahead, but for many years to come.

The other primary objective which has been foremost in my mind since the end of the Legislative Session is the need to develop concensus support from member colleges and build an effective organization for our service functions. This objective must be achieved primarily through your response rather than by my efforts. Each of us must contribute in several ways:

First, we must get to know each other better! With the great influx of out-of-state personnel and the opening of several new colleges, this is more difficult than it sounds. Those of you who have recently come on the Illinois scene, like myself, have gained a real appreciation for the veterans who have labored hard and long under extremely adverse circumstances. It is fortunate indeed that they build a solid foundation that will enable us to achieve new heights in post secondary education in a relatively short period of time. We must continue to work at "getting to know each other", capitalizing on the experience and talent of everyone engaged in the important endeavor in higher education.

Second, policy must be established which will identify the Association's public position and provide a framework for implementing our program. I have asked the four divisions to include this important task as part of their business tomorrow. We must develop a concensus on many positions and define differences on other positions, which must be accepted and respected.

Third, changes and adjustment should be made to improve communications and operations. Some of these were discussed at the Board of Directors Meeting this afternoon and it is very likely that changes in our Constitution will be proposed to you before the Annual Meeting. It will be reassuring to those who were apprehensive about the Association's reorganization last year, that the California Junior College Association, the oldest staffed state association, hopes to reorganize within the next six months with equal representation from board members, administrators, and faculty. You will be interested to know also that an executive director was recently hired by the Oregon Junior College Association and two other states are expected to staff their associations early next year.

Fourth, member colleges can not avoid the financial responsibility for the Association if it is to survive. In plain language this means that membership dues and assessments will have to be sufficient to support a realistic operational budget. The association in Michigan, with a third less member colleges, has a budget more than twice ours and is expecting to add an assistant executive director after the first of the year; the California association, which has about twice as many members as we have, has a budget more than three times ours. This year, as most of you know, I will have to raise $25,000 from outside sources if we are to meet the budget adopted at the Annual Meeting last May. Because final clearance from State and federal authorities was only recently received, only preliminary work has been done to obtain these funds from outside the membership. I am hopeful that by

March 1968 I can report that we will be able to survive this fiscal year without an extra assessment. I sincerely hope that member colleges will accept total financial responsibility next year so that my time can be devoted to the important work of the Association and not be bogged down by fund raising.

I will close in a spirit of extreme optimism. Without a doubt, we are on the threshold of a great adventure in education. The magnitude of our task is overwhelming as you look into the future with mounting enrollments and demands for new education programs and training. What could be more inspiring than what I see here tonight; state officials, local board members, administrators, faculty, and students, all with one purpose in mind, to build in our state the best system of community colleges and the best individual private junior colleges in the world. With imagination, with determination, through cooperation we will do just that. Thank you.

Friday, November 17, 1967

The morning sessions were devoted to business meetings for the four sessions (Board, Faculty, Administrators, Students) of IACJC. A general business session was called Saturday morning to consider the results of each of these division meetings. At that general business meeting, the following action was taken:

Dr. McClintock announced the appointment of two committees with primary responsibilities for the Annual Meeting scheduled for March 22 and 23, 1968, at the Palmer House in Chicago.

Nominating Committee

Elmer Rowley, Joliet Junior College, Chairman
Wayne Arnold, Rend Lake Junior College
Elizabeth Canar, Kendall College
John Haas, William Rainey Harper College
Kenneth Edwards, Illinois Central College

Program Committee

Robert E. Sechler, Vice President I.A.C.J.C., Chairman

Terry Armstrong	-	Student Division
Robert Burke	-	Faculty Division
Jessalyn Nicklas	-	Board Division
Edward Sabol	-	Administrator Division

The following resolutions were presented, voted upon, and adopted:

1. WHEREAS, The Illinois Junior College Board, formed during a time of great interest in junior colleges in Illinois, deluged by applications to establish districts, confronted by the tasks of not only aiding new colleges but also of organizing itself, has performed an outstanding service to education in Illinois;

BE IT RESOLVED THEREFORE, That the Illinois Association of Community and Junior Colleges extends its congratulations to the Illinois Junior College Board and looks forward to continued cooperative relationship.

2. WHEREAS, The Illinois Junior College System, through the Public Junior College Act, was established not only to provide transfer programs and educational opportunities at lower cost to the student but also to reflect and serve the needs of local areas in their associate programs;

   BE IT RESOLVED THEREFORE, That the Illinois Association of Community and Junior Colleges urges prompt action on program applications by the Board of Vocational Education, the Illinois Junior College Board, and the Board of Higher Education in order that the substantiated local need may be filled promptly and in order that the local college may take advantage of community support while it exists.

3. WHEREAS, The Public Junior College Act provides that the construction cost of the colleges be borne 75% by the State and 25% by the local district; and

   WHEREAS, The number of years to develop the system in Illinois is difficult to estimate;

   BE IT RESOLVED THEREFORE, That the Illinois Association of Community and Junior Colleges recommends that the State of Illinois continue 75% participation in capital construction costs of the junior colleges.

4. WHEREAS, The Public Junior College Act provides that colleges be established through local initiative, that local districts participate in costs through local taxation, and that local districts elect their own boards; and

   WHEREAS, It is well established that the success of community colleges across the nation has derived from institutions having sufficient local autonomy to respond to local needs, and

   WHEREAS, Over-infringement by federal and state agencies will jeopardize the success of this movement;

   BE IT RESOLVED THEREFORE, That consistent with this position of reflecting the local areas, the Illinois Association of Community and Junior Colleges supports the concept of local autonomy of these colleges in their operation, except in areas specifically restricted by law.

5. WHEREAS, The junior and community colleges in Illinois, with their emphasis on two-year programs, their technical offerings, their low cost to the student, their local administration and guidance, and their residing in, their servicing of, and their commitment to the local areas, may discover problems or procedures new to higher education in Illinois;

BE IT RESOLVED THEREFORE, That in the interest of long range planning for a successful junior college system in Illinois and for the purpose of developing good workable solutions to problems, the Illinois Association of Community and Junior Colleges recommends that state boards and other agencies expand the involvement of junior boards and their staffs, or representatives of both, in advisory capacities, in all matters relating to the junior and community colleges in Illinois.

6. WHEREAS, The federal government has looked with favor on contributions to colleges and universities by individuals and communities; and

   WHEREAS, The State of Illinois, by its support of its universities and colleges demonstrates its belief in training and education for the good of the people of Illinois; and

   WHEREAS, Contributions to our universities to improve and supplement programs establish a precedent in Illinois and indicate a willingness by the State to allow others to share its burden;

   BE IT RESOLVED THEREFORE, That the Illinois Association of Community and Junior Colleges supports the concept and compliments those individuals and communities who wish to implement programs or improve facilities in the local community colleges.

7. WHEREAS, The new concept in higher education in Illinois, the junior and community colleges, provides an opportunity to develop new methods and programs which other institutions of higher learning would find difficult to incorporate into existing and historical processes;

   BE IT RESOLVED THEREFORE, That the Illinois Association of Community and Junior Colleges urges the state and its agencies to encourage and foster educational innovations in junior colleges and the use of equipment available now through scientific and technological advances.

8. WHEREAS, The provision in the Master Plan for Higher Education for a State System of Community Junior Colleges has been implemented with unprecedented speed, bringing into existence thirty-three junior college districts, blanketing almost the entire State of Illinois, and

   WHEREAS, The enrollment growth in these new institutions will add immeasurably to the college-going population of the State and to the need for upper division and graduate opportunities for many of these students, and

   WHEREAS, It is in the best interests of the commonwealth to assure articulation of educational opportunities in Higher Education as set forth in the Master Plan for Higher Education, BE IT RESOLVED THEREFORE, That the 1967 Illinois Conference on Higher Education urge the public and private four-year colleges and universities, the Illinois Federation of Independent Colleges, the Joint Council for Higher Education, and the Illinois Board of Higher Education to take all necessary steps to assure places for junior college graduates who in rapidly increasing numbers will be qualified and will seek transfer to Illinois upper division programs in the immediate years ahead.

9. WHEREAS, It is the intent of the Public Junior College Act and the purpose of local public community colleges to provide relevant post-secondary vocational programs and to encourage enrollment in these programs;

BE IT RESOLVED THEREFORE, That the Illinois Association of Community and Junior Colleges publish a state directory of occupational programs offered in two-year colleges in Illinois.

10. WHEREAS, The Illinois Association of Community and Junior Colleges commends the spirit of cooperation among the Illinois Board of Higher Education, the Illinois Junior College Board, and the Board of Vocational Education, as revealed in the policies and procedures for approval of new curricula; and

WHEREAS, The Association desires to provide effective and coordinated programs of occupational education in Illinois, with the State agencies,

BE IT RESOLVED THEREFORE, That further discussion and clairification on the process of curriculum approved is essential and that immediate steps be taken to provide close and continuous communications between the appropriate state agencies and public junior colleges.

11. WHEREAS, The four divisions of the Illinois Association of Community and Junior Colleges have not had time to study the existing Standards and Criteria for Evaluation; nor have they had adequate opportunity to consult the Illinois Junior College Board;

BE IT RESOLVED THEREFORE, That the Illinois Association of Community and Junior Colleges request the State Board and the Illinois Board of Higher Education to postpone any action, pending an interaction of the divisions and further study.

NOON LUNCHEON

Presiding . . . . John K. Cox
Vice-Chairman, Illinois Junior College Board

THE COMPREHENSIVE PROGRAM IN THE ILLINOIS PUBLIC JUNIOR COLLEGES*

In discussing any topic, it seems desirable to develop one or more frameworks of reference. The topic for our consideration today suggests two bases upon which we might build a better understanding. These are: (1) the organizational structure of public education in Illinois and the place of the public junior colleges within that structure, and (2) the function of the public junior colleges as part of higher education.

Public education in Illinois is divided into two parts: common schools and higher education. The common schools are under the supervision of a constitutional officer--the Superintendent of Public Instruction. Public higher education institutions are established by the State Legislature and are operated by governing boards. The structure of public education in Illinois as it existed in 1960 is shown in this diagram.

CHART NO. 1...See Page No. 17

The operation of an adult education program or a junior college by a board of education having control over a high school represented a voluntary extension of educational service to the community. The mandated responsibility of that board ended with grade 12. When the Board of Education in Joliet, Illinois, established a junior college at the beginning of this century in all probability some citizens questioned the authority of the Board to establish and operate such an institution. Subsequent to that time, the operation of a junior college as a part of a common school district became legal on a permissive basis. It was over a half century after the establishment of Joliet Junior College, before the Illinois legislature began providing State money for a portion of the operational expense of public junior colleges.

In 1960, the public institutions of higher education were under the control of three separate boards as shown. Each of these boards went directly to the legislature requesting operating and capital funds. They also made direct requests for legislative approval of new services when such authority was not already established. Such independent requests by these boards suggested the need for coordination. Thus, in 1961, the State Legislature decided to provide for that coordination by establishing the Board of Higher Education.

CHART NO. 2...See Page No. 18

The Board of Higher Education was charged with the responsibilities of coordinating finances and approving new programs for the public institutions of higher education. The Board was also directed to make a study of higher education in Illinois, including the public and private two-year and four-year colleges. Such a study was made and a report published in 1964 entitled A Master Plan For Higher Education in Illinois. This study produced 48 recommendations for higher education and was submitted to the Legislature in 1965.

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*These remarks were given at the afternoon sessions of the Board, Administration, Faculty and Student Divisions of IACJC by Albert H. Martin and L. Everett Belote, Associate Secretaries, Illinois Junior College Board.

Between 1961 and 1965, a new concept regarding the legal structure of the public junior college in Illinois evolved as a result of legislation passed in 1959 amending the School Code. The amended Code permitted the creation of a junior college district separate from a common school district with a board of education and tax rates specifically for the operation and support of the junior college. The first such separate junior college district was established in 1961 and became operative in 1962. Between 1962 and 1965, four other separate junior college districts were established. These separate junior college districts were structurally part of the common schools under the supervisiion of the Superintendent of Public Instruction as shown in this diagram.

CHART NO. 3...See Page No. 19

Since the Board of Higher Education is a State agency with a formal relationship to public institutions, many persons do not realize that the Board gave significant consideration to the private sector of higher education. One example of that consideration is found in the 1964 Master Plan recommendation for a significant increase in State funds to the Illinois State Scholarship Commission. This recommendation resulted in an increase in the State appropriation to the Commission from $4,950,000 for the 73rd biennium to $10,000,000 for the 74th biennium. Most of the funds distributed for scholarships by the Commission have gone to students attending the private colleges and universities. For example, the 1967 Commission Report shows that 83.6% of the scholarship monies were distributed to students attending private institutions in 1965-66 and 85% in 1966-67.

Since many of the 48 recommendations of the 1964 Master Plan required legislation, 33 bills were introduced in the 1965 session of the General Assembly and all of them were passed. Insofar as the public junior colleges were concerned, House Bill 1710 was the most important single bill and became the Public Junior College Act.

The Master Plan recommended that the public junior colleges should be a part of public higher education through the development of a statewide system of locally initiated and controlled institutions. The Public Junior College Act established the Illinois Junior College Board and provided for the establishment of junior college districts with local junior college boards. The establishment of this new system removed the public junior colleges from the common schools. Thus, public higher education had its structure expanded as shown in this diagram.

CHART NO. 4...See Page No. 20

You will notice, that as a result of other legislation passed by the 74th General Assembly, the State Teachers College Board became the Board of Governors. Also, the two Chicago Teachers Colleges became State institutions and were placed under the Board of Governors. Northeastern Illinois State College was formerly Chicago Teachers College North and Chicago State College was previously Chicago Teachers College South.

Hopefully, this discussion of the organizational structure of public education is sufficient for the topic under consideration. However, the last diagram does not reflect the current situation. The Board of Higher Education continues to study higher education. Another phase of such studies was reported in A Master Plan For Higher Education in Illinois -

Phase II. As a result of one recommendation in Phase II, the 75th General Assembly created the Board of Regents and transferred two institutions from the Board of Governors to the new board as shown in this diagram.

CHART NO. 5...See Page No. 21

This organization of public higher education in Illinois is now described as a System of Systems. Each system is responsible for a particular type function. This leads to the second framework for consideration of the public junior colleges, i.e., the function of the institutions.

With rare and notable exceptions, the curricula provided by the Illinois public junior colleges prior to 1960 were limited to the first two years of baccalaureate degree programs. Even in several communities where the common school board operated both a junior college and an adult education program, adult education was not a responsibility of the junior college. Therefore, when some persons in Illinois public junior colleges became aware that the Public Junior College Act would make the colleges a legal part of higher education they rejoiced with the thought, "Now we can really be a college."

The definition of "college" as previously used in our society usually means "an educational experience for the high school graduate which leads to a bachelors or higher degree." However, the philosophy underlying the Public Junior College Act provides for a broader definition. The public junior college is designed to be a community institution responsive to community needs. Thus, the definition of college becomes, "an educational experience for the post high school age person which is appropriate to his needs, interests and capabilities."

The Master Plan provides that the public four-year institutions continue to provide programs appropriate to bachelors and graduate degrees. It further provides that the totality of public higher education enlarge its total services and charges the public two-year colleges with being unique institutions to provide such expanded services.

Before referring to the curricular responsibilities of the junior college as set forth in the Act, consider laws in general. Frequently, we quote a law as though a law superimposes an idea on all people and obtains total agreement from the people. An observation of recent human behavior regarding many ideas which have been incorporated into laws should prevent us from being so naive as to think that passing a law changes attitudes and concepts. Therefore, it seems important that we understand a law as a legal instrument through which a philosophy is expressed.

By 1965, the public junior colleges of Illinois have made some progress in offering diversified programs. The comprehensive junior college philosophy as reflected by the national leadership of the junior college movement had crystalized to a rather high degree. Thus, the philosophy of comprehensive programs for the public junior colleges, expressed in the 1964 Master Plan recommendations and incorporated in the Public Junior College Act, was well known and clearly established. We are now at the point of soliciting commitment to that philosophy by large numbers of persons.

The curricular functions of the public junior colleges as set forth in Section 1-2g of the Act are:

1. Liberal Arts and Science and General Education,
2. Adult Education, and
3. Occupational Education

The general nature of the institution is further described by the provisions of Section 3-17 which sets forth or implies these concepts:

1. Open admission to the institution,
2. Selected admission to various curricula,
3. Articulation with other institutions and community agencies,
4. The provision for preparatory programs, and
5. The necessity for competent and adequate staff to discharge the responsibilities of the college.

Accepting the comprehensive philosophy and identifying with that philosophy probably requires the consideration of another concept. We have customarily thought in terms of levels of educational attainment without reference to age as indicated on this diagram.

CHART NO. 6...See Page No. 22

In considering what would be appropriate programs to be offered by the junior college some people consciously or unconsciously superimpose a rather arbitrary dividing line on this scale.

CHART NO. 7...See Page No. 23

Let us consider time, or age of individuals, along with the level of educational attainment. These two dimensions permit us to represent individual educational progress in the form of a graph.

CHART NO. 8...See Page No. 24

This particular graph represents what we would call normal progress for a student pursuing formal study without interruption to the completion of a master's degree. However, many persons in our society deviate from this norm.

CHART NO. 9...See Page No. 25

This graph illustrates the progress of two such persons. From this illustration we can see that two different individuals may reach different levels of educational attainment at the same age or the same two persons might reach the same level of educational attainment at different ages.

If we now superimpose the same arbitrary dividing line between that which is appropriate for college which was discussed before, we have one axis for this graph.

CHART NO. 10...See Page No. 26

However, the comprehensive mission of the public junior college places an emphasis upon a different axis which is related to age of the individual. With service to post high school age persons as a primary consideration, the mission of the comprehensive junior college is to serve all persons 19 to 91 years of age. That service might well range from teaching a person to read and write to providing the first two years toward a doctoral degree program.

CHART NO. 11...See Page No. 27

Out of the considerations set forth in Sections 1-2g and 3-17 of the Act plus an emphasis on service to people of post high school age we can identify several appropriate types of services for the colleges.

CHART NO. 12...See Page No. 28

The baccalaureate oriented curricula have been and will continue to be a significant function of the public junior colleges. The Master Plan For Higher Education in Illinois - Phase II assures this importance. It provides that freshman-sophomore enrollments at the public four-year colleges and universities are to be stabilized on the presently existing four-year campuses as of 1970-71 except for Chicago Circle Campus of the University of Illinois and the Edwardsville Campus of Southern Illinois University. The junior colleges are expected to provide for the increased freshman-sophomore enrollments after that date.

Desirably, the public junior colleges will provide the opportunity for students to complete two years of study toward a bachelor's degree in many areas as illustrated in this diagram.

CHART NO. 13...See Page No. 29

Adult education by public education agencies has been a service of the high school in most communities. The term generally referred to courses offered to persons of post high school age during hours beyond the regular school day. When we consider adult education in relation to the junior college we destroy both of the bases for our previous definition. The college is designed to serve persons beyond high school age and operates during the day and evening. Thus, it seems desirable to consider the adult education function of the junior college in terms of community services for persons who are not enrolled as full-time students. Such community service programs would include a variety of activities appropriate for individual improvement and community development. The types of programs and services illustrated in this diagram are suggested as appropriate.

CHART NO. 14...See Page No. 30

When we turn our attention to occupational oriented curricula, we are prone to place an emphasis upon associate degree programs. Our society does need thousands of technicians to support professional personnel in many fields for which associate degree programs are appropriate and necessary.

However, student capabilities essential to successful completion of associate degree, technical-level curricula are similar to the competencies required for completion of baccalaureate oriented curricula. Thus, the inclusion of associate degree occupational curricula does not result in educational opportunities appropriate to a complete cross section of students. An attempt to illustrate the variety of occupational curricula appropriate to the public junior college is provided in this diagram.

CHART NO. 15...See Page No. 31

It might appear that these three areas of curricular service might serve the needs of all students. However, there is another large group of students yet unserved. This group pursues neither a baccalaureate nor occupational goal, yet wishes to be junior college students. If the college serves these students well, it needs to develop programs designed to serve them. For want of a better term, such programs are referred to as general education or general studies. If a legal basis is desired for developing such curricula, one may read the words in Section 1-2g of the Act, "liberal arts and science and general education" as though a comma appears after the word "science". If a logical deduction will suffice, one may recognize that the college is designed to serve community needs and consider this group of students as part of the community. There is a real opportunity and challenge ahead in developing curricula and courses which will relate formal learning to life applications in a way that promotes better citizenship for those who do not desire baccalaureate nor occupational oriented programs.

We have had preparatory programs for students who were not yet prepared for freshman level courses. Perhaps an enlargement of these programs might be coupled with the general studies area previously discussed. Section 3-17 of the Act clearly provides for preparatory programs.

Most persons in education place a significant emphasis upon counseling and guidance. There is frequently heated discussion regarding the most desirable manner in which to provide that counseling. A particular college may choose to provide specialized counseling personnel for this function while another involves the whole faculty in the process. Regardless of the approach, it seems essential that we begin to use a positive psychology approach to the student. We have frequently used negative psychology by telling the student he must "remove his deficiencies" or "prove himself". A positive approach would present the preparatory study as an additional service offered by the junior college because we sincerely believe that each person should have an opportunity to progress beyond his present development.

The last major service identified earlier was placement. Whether or not a student graduates or leaves before graduation is not sufficient justification for the college staff to help him in one situation and reject him in the other. Neither does the type of program pursued justify the college personnel being concerned about some but not others. The function of the institution requires that we assist students in moving from the college to their next station in life irrespective of what that station may be.

Hopefully this discussion is helpful as we seek to define a comprehensive philosophy which will produce comprehensive programs.

CHART NO. 1

THE ORGANIZATIONAL STRUCTURE OF PUBLIC EDUCATION
FOR ILLINOIS IN 1960

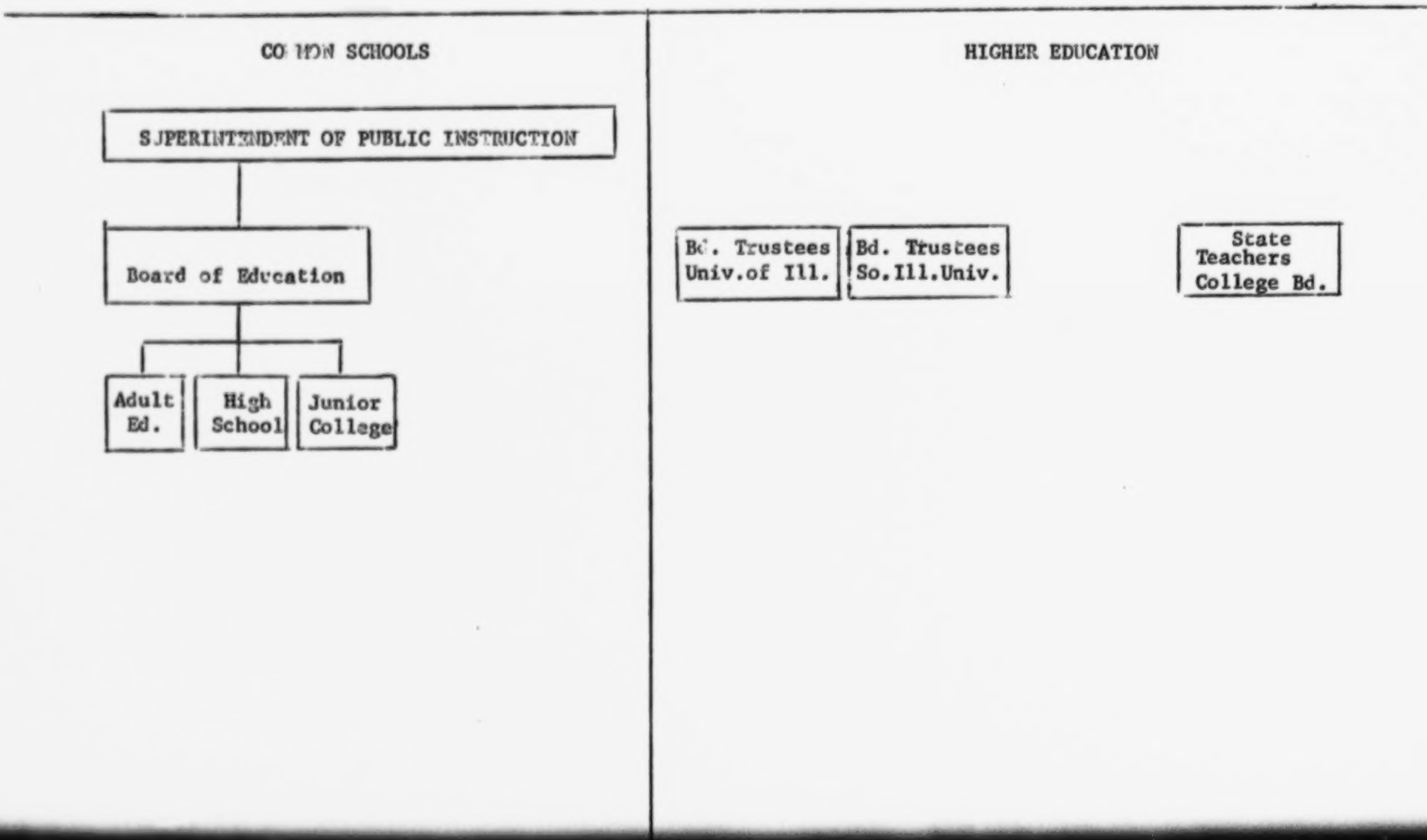

COMMON SCHOOLS
SUPERINTENDENT OF PUBLIC INSTRUCTION
Board of Education
Adult Ed.
High School
Junior College
HIGHER EDUCATION
Bd. Trustees Univ.of Ill.
Bd. Trustees So.Ill.Univ.
State Teachers College Bd.

CHART NO. 2

THE ORGANIZATIONAL STRUCTURE OF PUBLIC EDUCATION
FOR ILLINOIS IN 1961

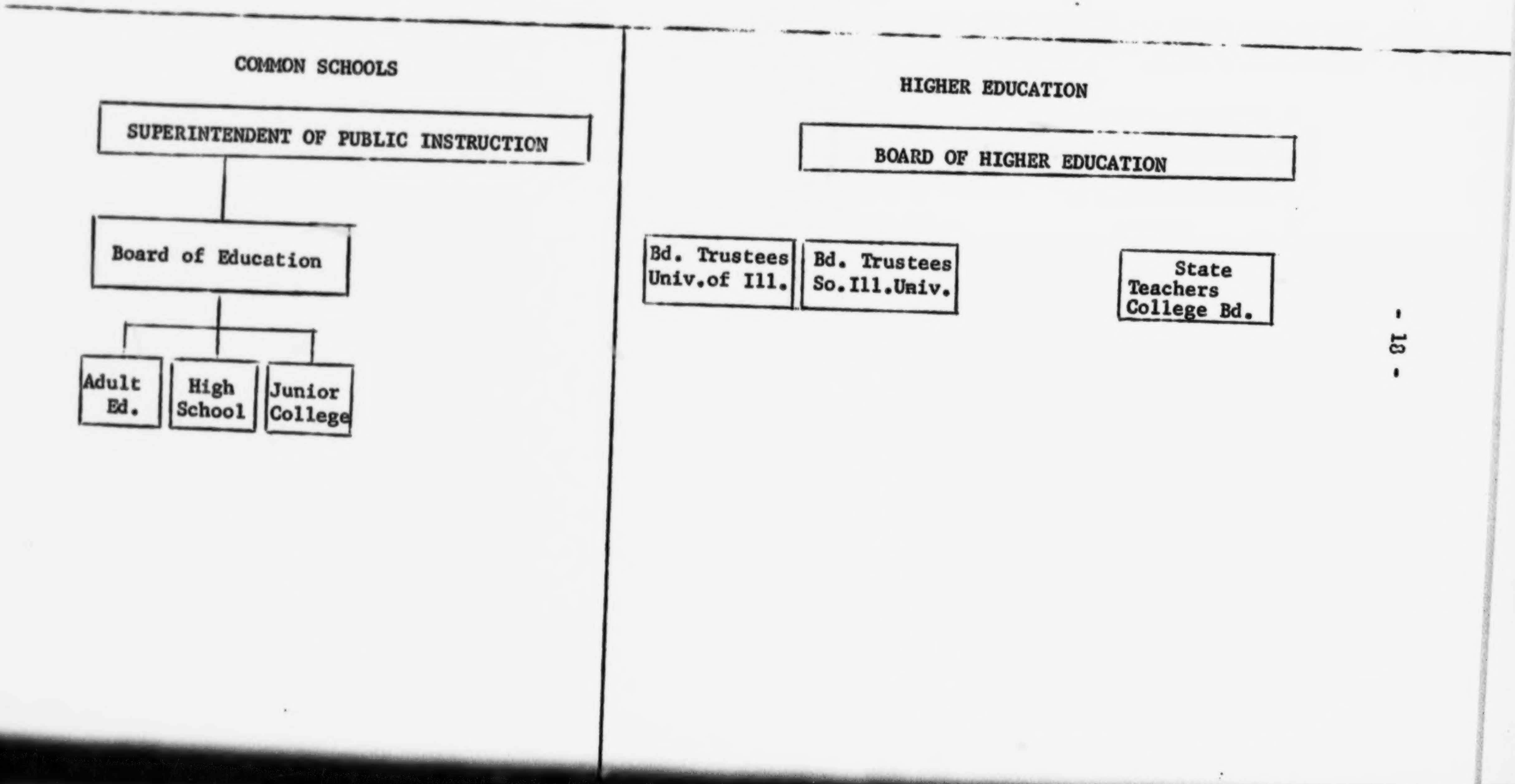

COMMON SCHOOLS
SUPERINTENDENT OF PUBLIC INSTRUCTION
Board of Education
Adult Ed.
High School
Junior College
HIGHER EDUCATION
BOARD OF HIGHER EDUCATION
Bd. Trustees Univ.of Ill.
Bd. Trustees So.Ill.Univ.
State Teachers College Bd.

CHART NO. 3

THE ORGANIZATIONAL STRUCTURE OF PUBLIC EDUCATION
FOR ILLINOIS IN 1962

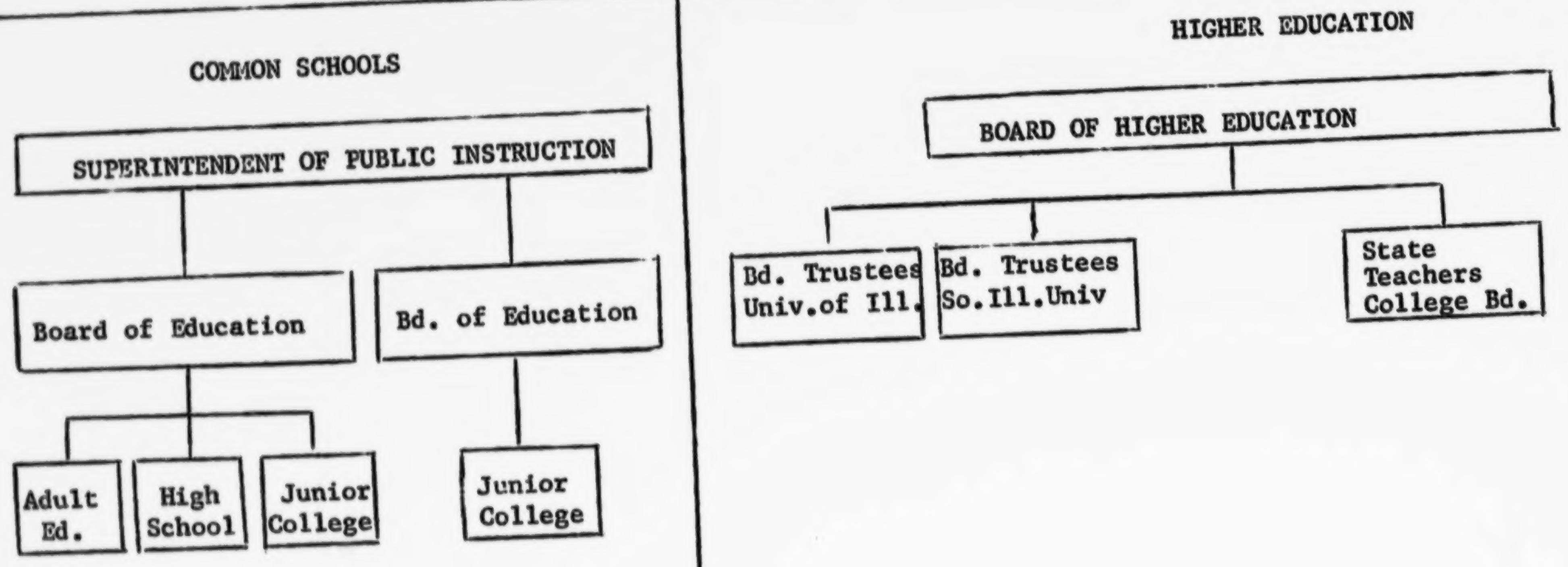


CHART NO. 4

THE ORGANIZATIONAL STRUCTURE OF PUBLIC EDUCATION
FOR ILLINOIS IN 1965

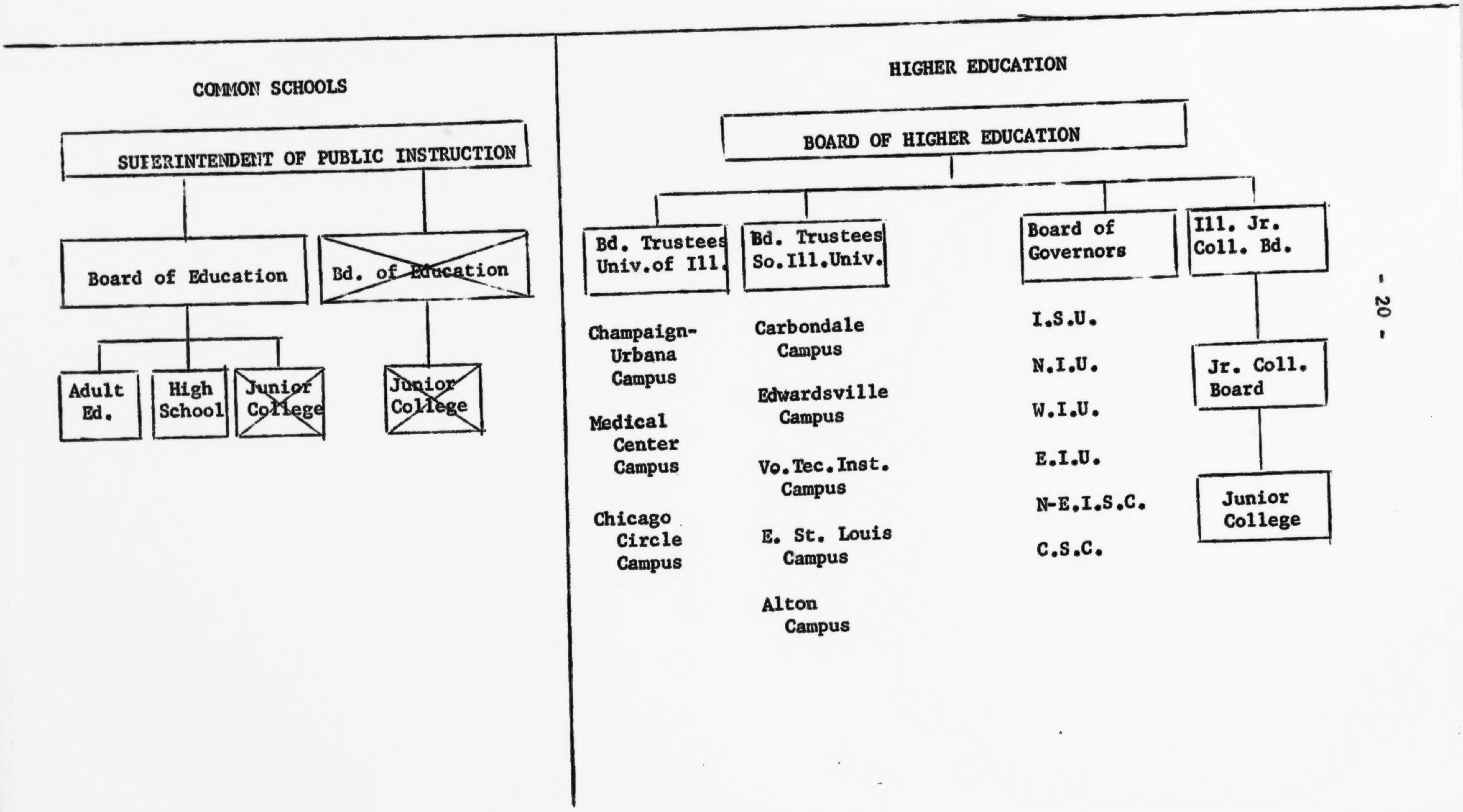
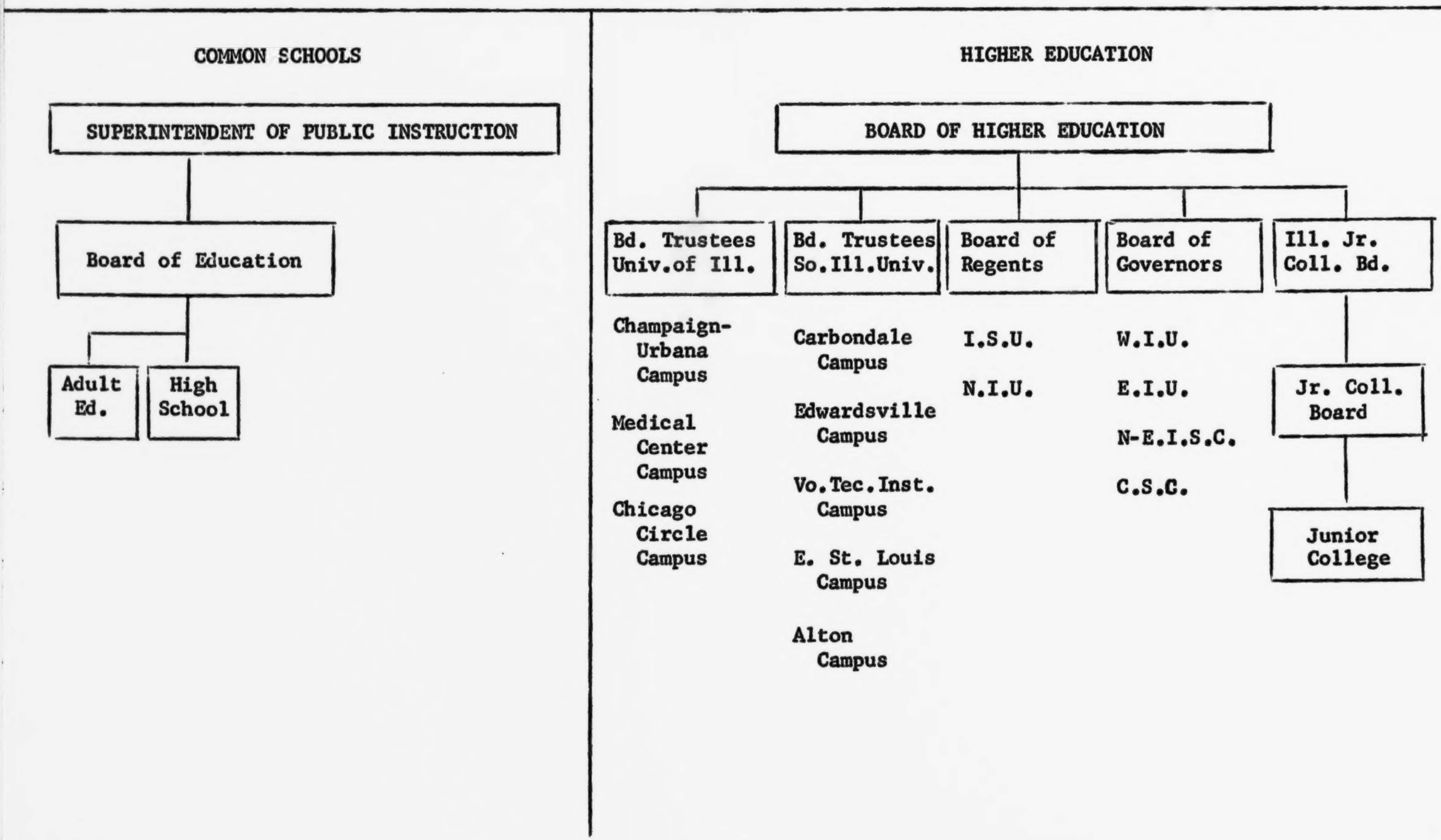


CHART NO. 5

THE ORGANIZATIONAL STRUCTURE OF PUBLIC EDUCATION FOR ILLINOIS IN 1967



LEVELS OF EDUCATIONAL ATTAINMENT

CHART NO. 6

DOCTOR'S DEGREE

MASTER'S DEGREE

BACHELOR'S DEGREE

HIGH SCHOOL

ELEMENTARY SCHOOL

LEVELS OF EDUCATIONAL ATTAINMENT

CHART NO. 7

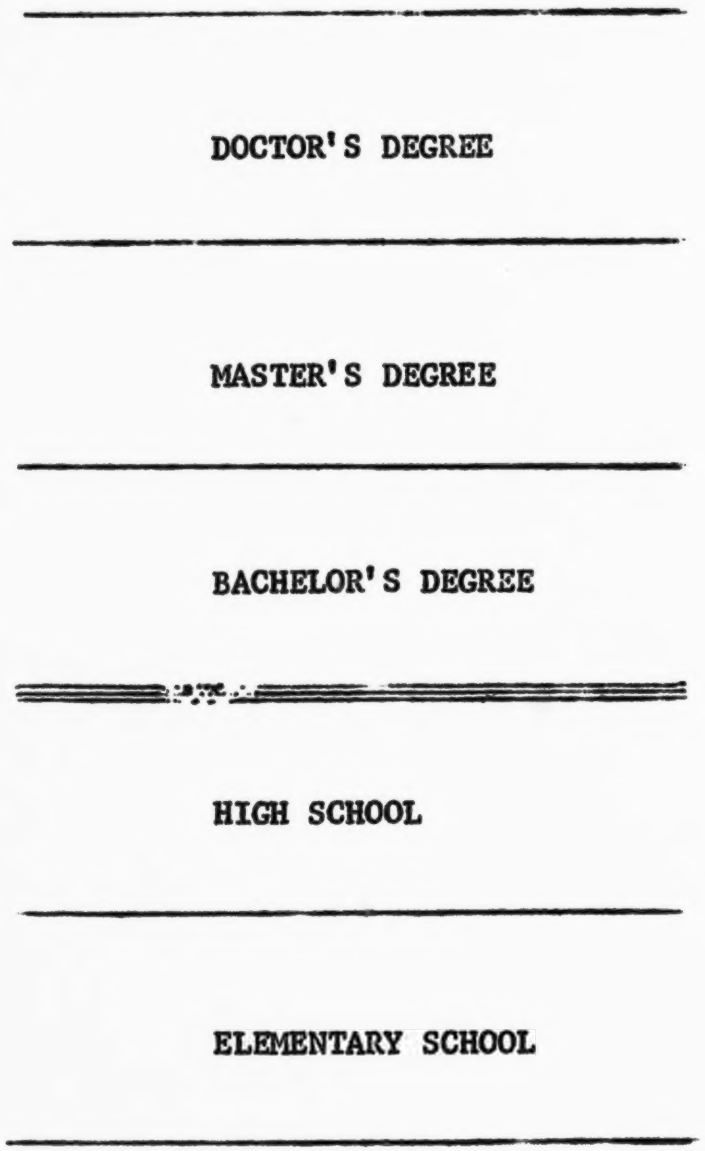


CHART NO. 8

LEVELS OF EDUCATIONAL ATTAINMENT

IN RELATION TO AGE

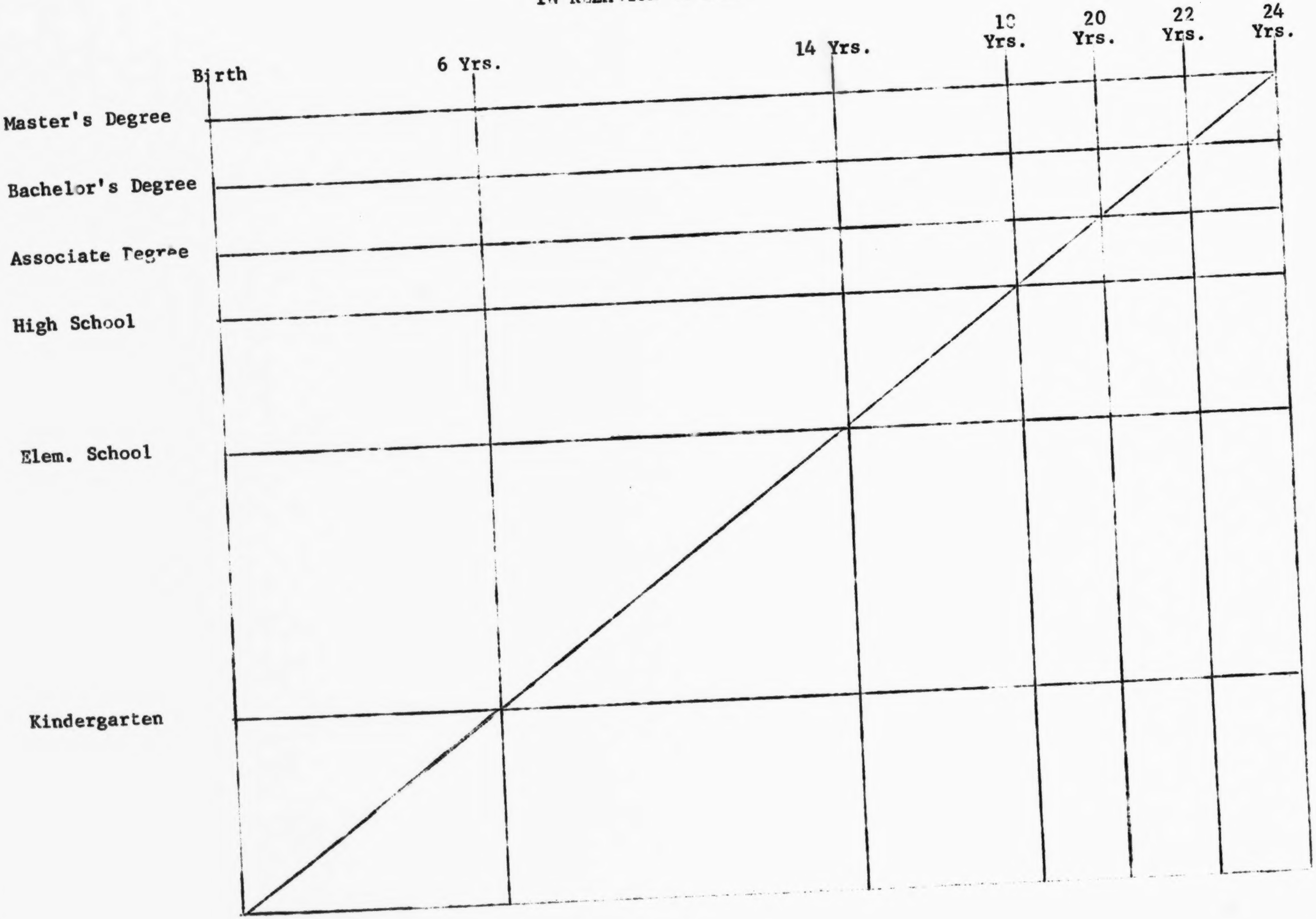
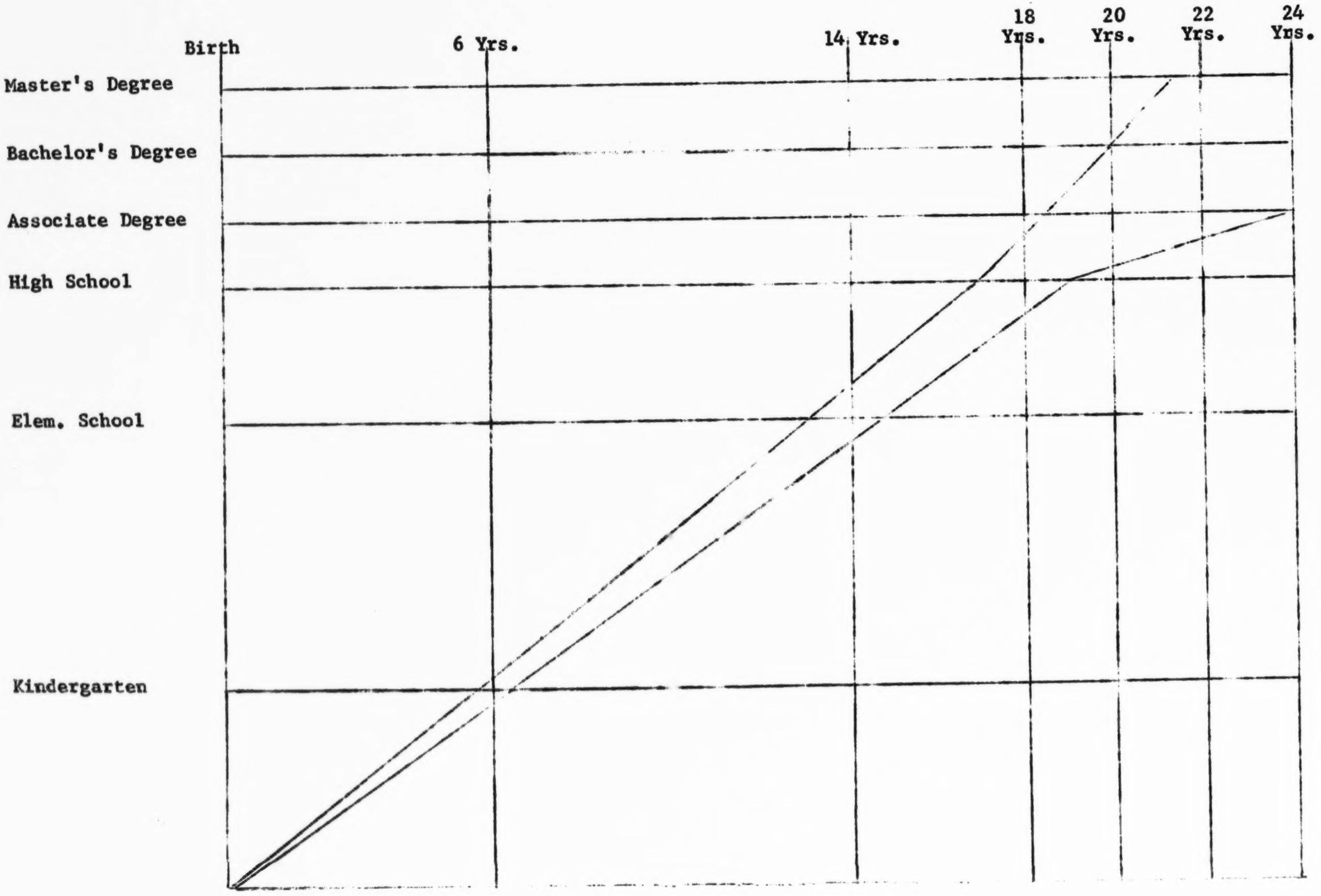


CHART NO. 9

LEVELS OF EDUCATIONAL ATTAINMENT IN RELATION TO AGE



LEVELS OF EDUCATIONAL ATTAINMENT
IN RELATION TO AGE

CHART NO. 10

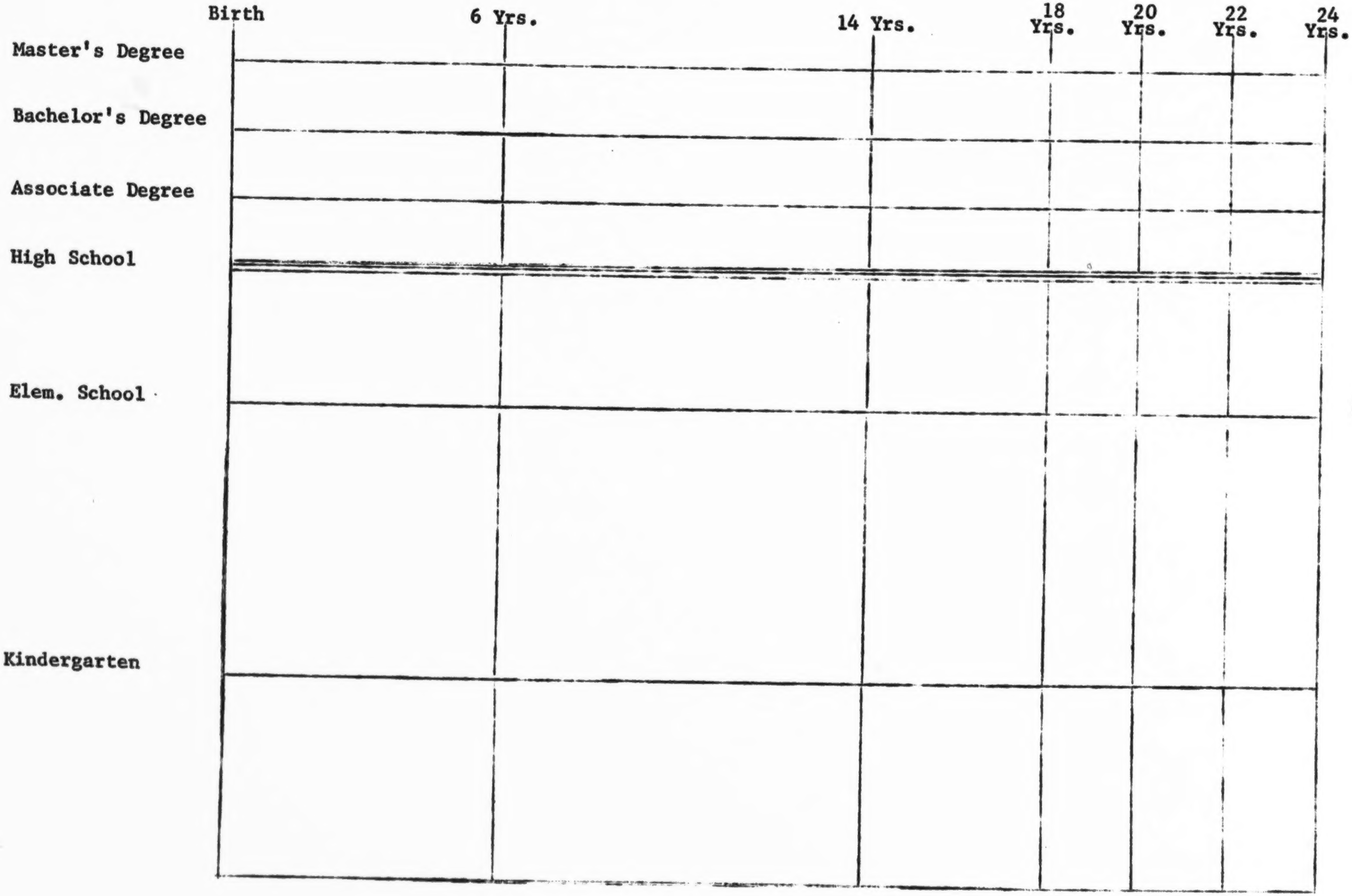


CHART NO. 11

LEVELS OF EDUCATIONAL ATTAINMENT IN RELATION TO AGE

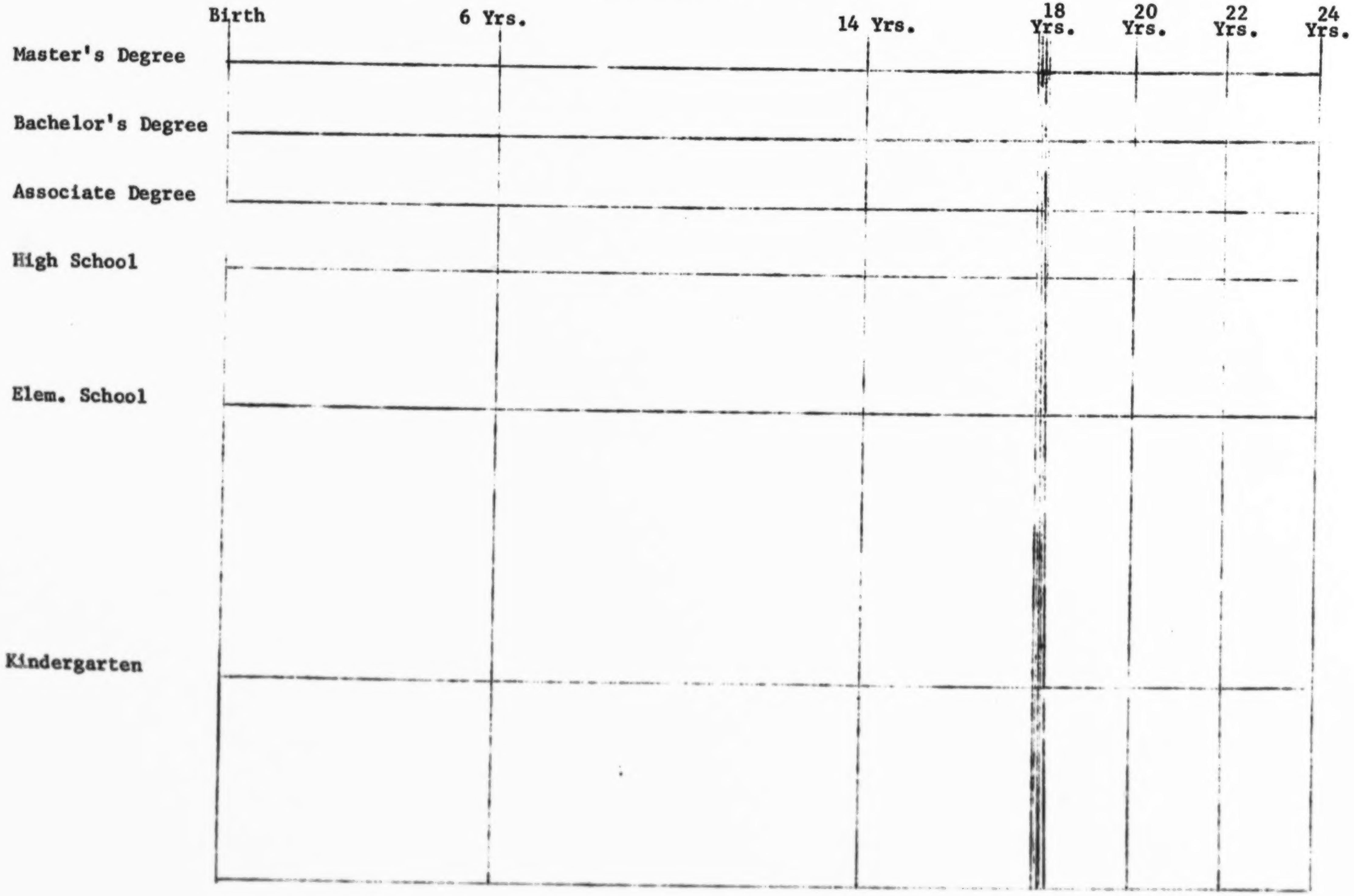


CHART NO. 12

APPROPRIATE PROGRAMS AND SERVICES
FOR THE PUBLIC JUNIOR COLLEGES IN ILLINOIS

BACCALAUREATE ORIENTED CURRICULA

ADULT EDUCATION (COMMUNITY SERVICE PROGRAMS)

OCCUPATIONAL ORIENTED CURRICULA

GENERAL STUDIES CURRICULA

PREPARATORY PROGRAMS

COUNSELING AND GUIDANCE

PLACEMENT SERVICES

CHART NO. 13

TYPES OF BACCALAUREATE ORIENTED CURRICULA APPROPRIATE TO THE PUBLIC JUNIOR COLLEGE IN ILLINOIS

Liberal Arts and Sciences

- English
- Humanities
- Foreign Language
- Mathematics
- Biological Sciences
- Physical Sciences
- Social Sciences

Pre-Professional Programs

- Architecture
- Dentistry
- Law
- Medicine
- Pharmacy

Other

- Agriculture
- Art
- Business
- Education
- Engineering
- Home Economics
- Journalism
- Music
- Nursing

CHART NO. 14

DIMENSIONS OF ADULT EDUCATION
IN ILLINOIS PUBLIC JUNIOR COLLEGES

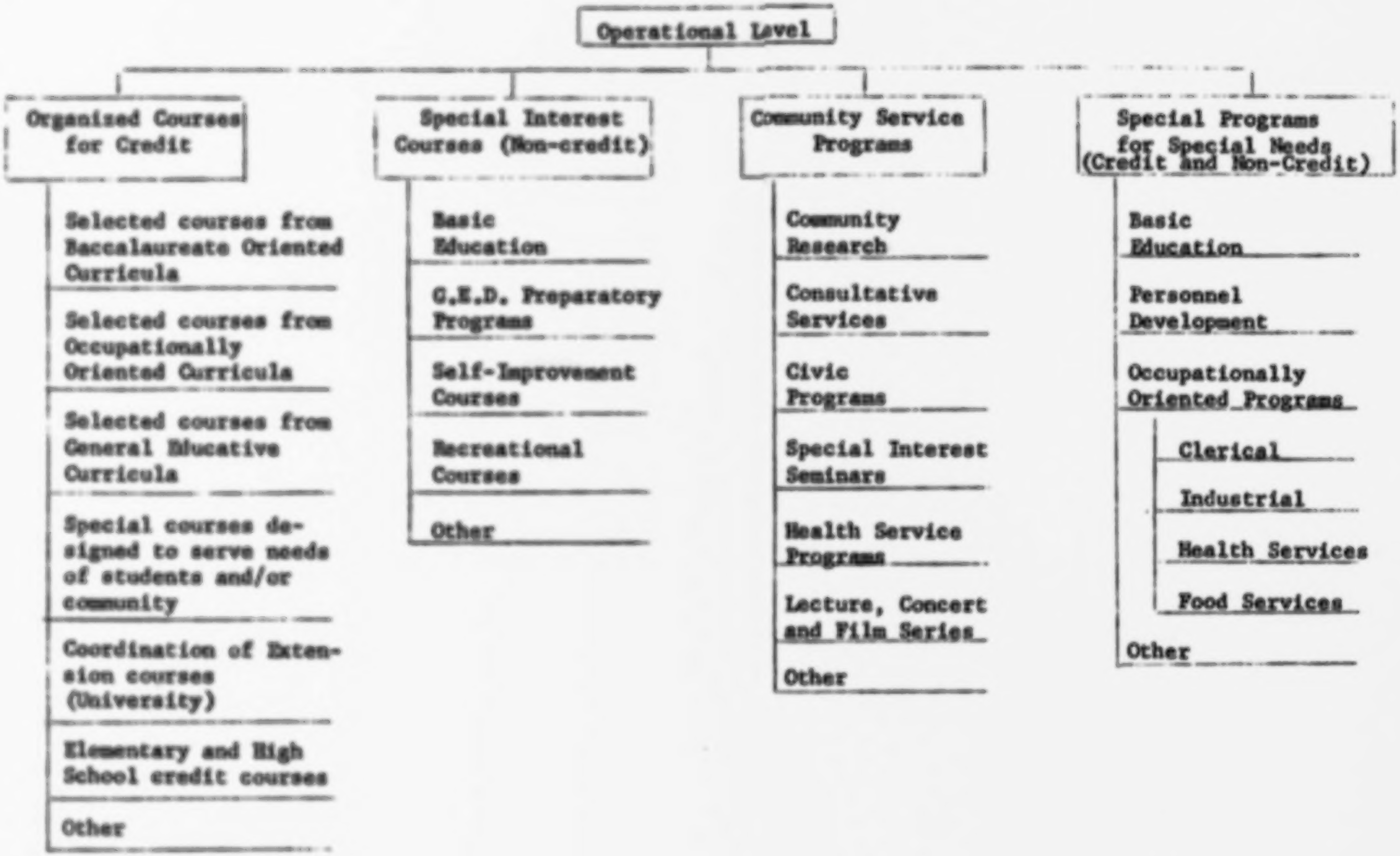

Operational Level
Organized Courses for Credit
Selected courses from Baccalaureate Oriented Curricula
Selected courses from Occupationally Oriented Curricula
Selected courses from General Educative Curricula
Special courses designed to serve needs of students and/or community
Coordination of Extension courses (University)
Elementary and High School credit courses
Other
Special Interest Courses (Non-credit)
Basic Education
G.E.D. Preparatory Programs
Self-Improvement Courses
Recreational Courses
Other
Community Service Programs
Community Research
Consultative Services
Civic Programs
Special Interest Seminars
Health Service Programs
Lecture, Concert and Film Series
Other
Special Programs for Special Needs (Credit and Non-Credit)
Basic Education
Personnel Development
Occupationally Oriented Programs
Clerical
Industrial
Health Services
Food Services
Other

CHART NO. 15

ILLINOIS PUBLIC JUNIOR COLLEGES

BREADTH AND DEPTH IN OCCUPATIONAL PREPARATION

LENGTH OF CURRICULUM	AUTOMOBILE MANUFACTURING AND SERVICE	OFFICE OCCUPATIONS	HEALTH SERVICES
TWO YEARS	ENGINEERING TECHNICIAN PRODUCTION SPECIALIST	OFFICE SUPERVISOR DATA PROCESSING PROGRAMMER	REGISTERED NURSE (ADN) DENTAL HYGENIST X-RAY TECHNICIAN
THREE SEMESTERS	HEAT TREATER PRODUCTION SUPERVISOR	STENOGRAPHER DATA PROCESSING PERIPHERAL EQUIPMENT SUPERVISOR	OPERATING ROOM TECHNICIAN MEDICAL TRANSCRIPTIONIST
ONE YEAR	ENGINE MECHANIC BODY REPAIRMAN AUTOMOTIVE MACHINIST	CLERK-TYPIST DATA PROCESSING PERIPHERAL EQUIPMENT OPERATOR	PRACTICAL NURSE (LPN) DENTAL ASSISTANT
ONE SEMESTER	FRONT END & BRAKE MECHANIC PARTS CLERK LUBRICATION SPECIALIST	OFFICE MACHINES OPERATOR KEY PUNCH OPERATOR	NURSE AIDE RECEPTIONIST
SIX WEEKS	SERVICE STATION ATTENDANT	FILE CLERK	HOUSEKEEPER

OTHER BROAD FIELDS

- AGRICULTURE (AGRI-BUSINESS)
- BUILDING CONSTRUCTION
- HIGHWAY CONSTRUCTION
- MARKETING AND SALES
- HARD GOODS MANUFACTURING
- SOFT GOODS MANUFACTURING
- OTHER

EVALUATION AND RECOGNITION*

In my remarks today I would like to present relevant background data for the purpose of bringing into focus our present status, to analyze briefly our current position and finally to attempt a personal statement of future goals and aspirations for the State Board.

BACKGROUND

No one ever has--or ever will--devise a system to measure adequately the relative quality of American colleges. The reason is simple: They are to diverse. They differ in their own goals and they differ in what their students want from them. What makes a great college is how well it does what it sets out to do. In Illinois the Public Junior College Act insures that in the public sector there shall be a degree of uniformity from college to college; nonetheless the statement that each is unique is still basic.

Traditionally, Americans have placed great emphasis on local control of education. Although education may have been recognized as a function of the state by local educational leaders, these leaders expected the state to delegate major powers to local school districts; although state departments of education were authorized and developed in all the states, most of them were not encouraged to attain prestigious status. Until recently, at least, citizens seemed to prefer weak state educational agencies in order to protect local prerogatives in educational decision making. Illinois is no exception to this rule operating as yet without a state board of education--a concept which is neither new nor unique--48 out of 50 states have such a body. A state board has been recommended and proposed in Illinois for 50 years--in 1907, in 1923, in 1933, in 1935, in 1944, in 1963, 1965 and 1967. Each of these recommendations was made after careful and thorough study by non-partisan commissions.

That 48 states could be wrong and two, Illinois and Wisconsin, could be right is not highly probable. That the efforts of non-partisan commissions could fail to achieve this goal over a period of 50 years could lead one to believe that persons in key positions have effectively thwarted this development to date.

It is also likely that the people of Illinois do not understand nor appreciate strong leadership at the state level. That this may be true and that it may relate to the current topic of evaluation and recognition is highly probable.

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*These remarks were given at the afternoon sessions of the Faculty and Administration Division of I.A.C.J.C. by James S. Spencer, Associate Secretary, Illinois Junior College Board.

Knezevich[1] has traced the development of state education departments through three successive stages.

The first stage of development in the state departments of education he refers to as the statistical stage. For most states this constituted a period from establishment to about 1900. During this time of evolution the state department, as an organization, was concerned primarily with gathering, compiling, and publishing statistics, preparing forms, making biennial reports, publishing income studies, and similar duties. These activities need not be degraded, for they are important. Criticism is warranted where such activities remain the only or the major function of the state department.

The second he called the inspectoral stage, which lasted, in most states, from 1900 to 1930. (These dates are approximations /and/ there is considerable overlap--forward and backward--among the stages stipulated.) The inspector was not a clerical worker but a quasi-professional who provided service in the field. His function arose during the period when the legislature hoped to improve the quality of education through the establishment of regulatory controls over local school units. It was believed that all the state had to do to improve local schools was to enact standards and then send inspectors to determine if these standards were observed.

The leadership stage for state departments of education came into being according to Knezevich when it became apparent that the activities of the inspector, visitor, or supervisor fell short of the goal of equalizing educational opportunity. The emphasis began to shift to leadership activities, rather than inspectoral activities, as a means of upgrading local educational programs.

This approach called for a new type of staff member--the professionally qualified state department consultant. The respect earned by and based on professional knowledge and leadership ability was to be emphasized in the place of state authority vested in an inspector applying regulatory controls.

I would like to suggest that as a new state agency it is very probable that the State Board may have to evolve through somewhat analagous, if not exact stages, until it is capable of the leadership capabilities that all of us may wish it to have been endowed with at birth.

Accreditation Versus Recognition

All of us here recognize the accrediting process as an evaluative one developed by professional colleagues with the most important function being that of assessment of the quality of instruction in colleges and universities and an examination of administrative policies, financial structure and other factors which influence the quality of the product which we attempt to assess.

Although not exactly synonymous with accreditation and yet so closely related that many will find it difficult if not impossible to differentiate with clarity, recognition results from the efforts of members of the staff or the State Board as well as educational leaders from junior colleges throughout the state to assess the quality of instruction as is done in the accreditation process, but *in addition* to evaluate in terms of the standards as set forth in the statutes and finally an assessment with respect to the consensus of elected officials as represented in the executive and legislative branches of state government. In the final analysis each of us must submit his efforts to their scrutiny.

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[1] Stephen J. Knezevich, Administration of Public Education, Evanston, Harper and Row, 1962.

Footlick, in his just published *The College Scene Now*[2]--making the assumption that no difference exists between accreditation and recognition--has observed that American colleges and universities may be accredited at three different agencies: (1) state, (2) professional organizations, and (3) regional associations.

State:

The first form of accreditation identified is that provided by the states. Most states issue charters to colleges within their borders, and exercise their legal authority to varying degrees in regulating and approving the colleges' operations. Some states do a competent job of this, while others do little or nothing.

Professional Organizations:

A specialized form of accreditation is conducted by about 30 professional organizations in such fields as architecture, law, medicine, social work, and pharmacy. Thus, the National League for Nursing, Inc., accredits bachelor's and master's degree nursing programs, while the National Association of Schools of Music accredits institutions granting degrees in music.

Regional Associations:

The third and most important form, according to Footlick--regional accreditation of colleges as whole institutions--is conducted gy the institutions of higher education themselves through six regional accrediting associations as a type of collective self-regulation.

These regional associations are voluntary, independent groups and are unrelated to any political or religious organization. They have accredited more than 1600 institutions of higher learning--more than two-thirds of the total number of such institutions in the nation.

Accreditation by a regional association means that the college has conducted a comprehensive study of itself, has been examined for several days by a visiting team of educators, and has been judged to be satisfactorily accomplishing its own statement of objectives. The objectives have been judged to be appropriate to an institution of its type. The accreditation process may be repeated every ten years.

Regional accreditation certifies that the institution meets minimum standards of academic excellence, and more important in the view of most educators, the accreditation process encourages and assists the college to raise its standards even higher.

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[2] Jerrold K. Footlick, *The College Scene Now*, Silver Spring, Maryland, The National Observer, 1967.

The regional associations have no legal power over their member colleges. Their only real power is in publicizing lists of colleges they have accredited, and in publicizing names of colleges that are about to lose accreditation or have already lost it.

The accrediting associations make no attempt to rank the colleges on a comparative basis.

I would observe that while it may be true that accrediting associations make no attempt to rank colleges on a comparative basis, neither is it likely that they are subjected to value judgments in a vacuum.

It is, perhaps, appropriate to look at some of the implications of this aspect of evaluation. There are, I believe, three criteria for evaluation:

I. Evaluation in relation to an "Ideal."

If we are to evaluate in terms of an "ideal" we must go back in time to the days of philosophical "idealism" as espoused by Plato. This can best be illustrated by the "rose" as a type of flower. It is my understanding that the American Rose Society rates all roses on a scale in which a score of ten is perfect. However, the "perfect" rose does not exist in "reality" but in the "soul of Man." Hence, the best Crimson Glory Rose could earn a score of 9.7. Since no rose ever has or ever can earn a score of ten, the judges must possess a "ten point rose concept" in their minds and all "real roses" are evaluated in terms of a rose that does not exist in reality, but does exist in the world of "Inate Ideas." My question is obvious, "Is this the kind of evaluation we seek and if so whose "idea of the perfect college are we to accept?"

II. Evaluation in "relation to others."

Were we to do this, the best college could earn a score of 10, and others would be evaluated as they relate to it. My question here would be two-fold, (1) "Are we willing to assume that the best college that exists is worthy of a score of 10?"--or even for that matter a score lower than 10, but more basically, (2) "Are we willing to have our operation evaluated as it relates to that of others?"

III. Evaluation in relation to a "college's own best effort."

For years we have talked of this as the ideal for the evaluation of student progress, but in reality in few places do we find it in practice. "Competition with others" as opposed to "competition with our own best potential" seems to prevail in practice--at least to the present.

How then shall we evaluate colleges?

Fortunately, the legislature has taken the answer to this out of the realm of the philosophical and placed it into the arena of the practical. It said, in part:

The State Board shall have the power and it shall be its duty:
"To determine efficient and adequate standards for junior colleges for the physical plant, heating, lighting, ventilation, sanitation, safety,

> equipment and supplies, instruction and teaching, curriculum, library, operation, maintenance, administration and supervision, and to grant recognition certificates to junior colleges meeting such standards."[3]

and further:

> "The State Board shall grant recognition to junior colleges which maintain equipment, courses of study, standards of scholarship and other requirements set by the State Board. Application for recognition shall be made to the State Board. The state Board shall set the criteria by which the junior colleges shall be judged and through the executive officer of the State Board shall arrange for an official evaluation of the junior college and shall grant recognition of such junior colleges as may meet the required standards."[4]

Standards and Criteria then are necessary for two reasons:

(1) The statutes require them as has just been noted, and

(2) Evaluation is impossible without them. To support this contention it is necessary to distinguish between measurement and evaluation.

Evaluation, the more encompassing of the two terms, involves three processes:

1. Determination of standards and criteria which are deemed desirable of attainment.
2. Developing effective means of measuring the extent or degree to which an institution, individual, etc., meets the stated standards and criteria.
3. Making a value judgment as to the recorded measurement.

THE PRESENT

At present I ascertain a lack of enthusiasm on the part of colleges for participation in the recognition process. This, I believe, is the result of several factors, two of which I would like to enumerate: (1) inadequacy of communication between the State Board and the colleges, and (2) a complex social order requiring more and more state, regional and federal planning for the common good. The first of these factors - inadequacy of communication - we at the state level are as deeply concerned with improving as is any college. The second, the social order in which we find ourselves, will require more understanding on the part of all and will not as readily lend itself to clarification.

With respect to the latter, the education establishment is undergoing change at an unprecedented rate. All relationships are in a state of flux. Further, this condition is likely to be the rule rather than the exception for the forseeable future. Again, not unlike other social relationships, there exists no easy solution.

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[3] Article II, Section 12(e), The Public Junior College Act.

[4] Article III, Section 15, The Public Junior College Act.

Abdication of responsibility - the solution often sought as the panacea to state to local or local to local relationships is not the answer for at least two reasons: (1) It is not possible, and (2) even if it were possible it is not feasible. To support these statements may I clarify the concepts of "authority" and "responsibility."

Koontz and O'Donnel have distinguished between these two concepts as follows: "Authority [refers to] the right by which superiors are able to require conformity of subordinates to decisions [it] is the basis for responsibility and the force that binds organizations together."[5] Authority to perform any function may be delegated. And as a matter of fact authority must be delegated if an organization is to function effectively. On the other hand of responsibility they state, "The responsibility of the subordinate to his superior is absolute, and no superior can escape responsibility for the activities of his subordinate."[6] Thus, no degree of responsibility may ever be delegated to any subordinate. It follows that the most unpardonable of administrative errors occur when a public body or official (1) expects subordinates to function without adequate authority, or (2) fails to accept full responsibility for the actions of any or all subordinates. Close examination of these statements will reveal that the principles upon which they are based call for the ultimate in "responsible action" on the part of each member of an organization.

These two concepts are pertinent to the relationship of educational administrators with their lay boards and other professional colleagues which has been so diverse that its historical treatment would require a separate presentation. One such historical eqoch is relevant, however, and will be briefly referred to - namely, "Democracy in Educational Administration." This phase, like others in the development of educational administration, produced much that is desirable. One interpretation--delegation of responsibility--was, however, undesirable. Responsibility for policy making has always rested with governing boards. Decision making for the effective functioning of an institution--within the framework of established policy--rests with the administration. Neither the board nor the administration can delegate these responsibilities to others. This truism obtains with respect both to local boards and administrators and to the State Board and its staff.

The conclusion is that no matter how much participation by all interested parties may precede policy and decision making, ultimate responsibility for both rests where it is placed by statute or lesser policy statements or administrative rules and regulations. If this policy is violated it results at best in irresponsible action and at worst in anarchy.

More insight may be provided by examining our situation to see if we may not conclude as did Sidney Hook in 1943.

Regarding the then enlarging role of government, he observed: "The trend toward collectivism and the intervention of the state into economy are 'unavoidable.' To hark back to the era of free enterprise is just another futile call, and of the same kind but not of the same desperate degree as the call to return to an agrarian economy. We can make the attempt, but the overwhelming probability is that we shall disastrously fail. Where our intelligent choice lies is not in trying to contest what seems an irreversible trend but in determining who the state shall be, how it shall intervene, and the extent to which collectivism in production shall go. Therein lies our freedom."[7]

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5. and 6. Harold Koontz and Cyril O'Donnell, Principles of Management, (New York: McGraw Hill Book Co., Inc., 1955), p. 47 and p. 296.

7. Sidney Hook, The Hero in History, (Boston: Beacon Press, 1943), p. 264.

The challenge to the State Board then is to establish a viable position between the extremes of abdication of responsibility on the one hand and excessive paternalism on the other. In the dynamic culture in which we live this challenge will be both difficult and continuing.

THE FUTURE

If we are to face the future with mutual confidence and a reasonable expectation of success, it is my judgment several "myths" must be exposed. Two of them are: (1) Junior college education is "cheap" or inexpensive." I suggest that quality education at no level is exempt from competition and, hence, will always cost a good deal to generate. Junior colleges then are at one and the same time expensive, yet the most inexpensive means of providing quality and comprehensiveness in higher education.

Specifically, in terms of 1967 dollars we are talking about per capita cost of $1000 for the typical liberal arts and science curriculum and for the more expensive occupation oriented curricula a per capita figure of up to $2000.

We must communicate this to our public in such a way that the myth of "inexpensive" education is dispelled and in its place is implanted the idea that money expended for junior colleges - while not as little as may have been expected - nonetheless represents Illinois' best investment in higher education. In short, the return on the investment will be in direct proportion to the investment itself. The State Board is charged with insuring that this shall be the case in Illinois. (2) Local initiative and local control was the central theme of the Public Junior College Act. To examine this may I quote again from the statutes: Article II, Section 12(a) states: "The State Board shall have the power and it shall be its duty:"

> (a) To provide state-wide planning for junior colleges as institutions of higher education and *coordinate the programs*, *services* and *activities* of *all junior colleges in the State* so as to encourage and establish a system of locally initiated and administered comprehensive junior colleges. Local control - Yes - but within the framework of a "state-wide system." (emphasis mine)

Specifically, then I believe the State Board is responsible for three basic leadership functions:

(1) Planning (Including Coordination of Programs)

Planning is the central element of the educational leadership function. It alone can assure appropriate purposes and developments in education; consequently, a major responsibility of the State Board is that of long-range planning to ensure that the large investments in education will produce the quality of educational opportunity that is so universally needed and desired. Hence, the "Unit Cost Study," "Approval of New Programs," "Standards and Criteria" and other elements without which intelligent state-wide planning is not possible.

(2) Promoting Innovations

In general, state education departments have rather consistently promoted the status quo in educational practice. They have tended to be rigid rather than flexible. Therefore, if the State Board is to be a potent influence for the improvement of educational practice, it must take the lead in developing, stimulating and diffusing innovation in all areas of junior college operation. It must at all costs avoid the ever present danger to any bureaucracy, viz., inflexibility on the one hand and a tendency for "means" to become "ends to themselves" on the other.

(3) Political Leadership

Significant recent developments have plummeted educational decision making into the midst of the political arena. The expectations for public education on the part of all Americans have risen sharply. Almost every organized group wants education to serve a particular goal. Consequently, education is frequently the most important political issue at all levels of government. Educational decisions are being made in the political arena, and educators must become active and effective participants in the political process.

To exercise its leadership in this vital area, the State Board must assume appropriate roles in the political environment relating to higher education. It must be sensitive to emerging issues such as urban planning, juvenile delinquency, data systems, education for minority groups and collective bargaining, to name but a few. In addition, it must exercise leadership to insure that the citizens of Illinois, as represented by their elected state officials, have every confidence in its stewardship of the heretofore undreamed of sums of money being expended for junior college construction and operation. I have every confidence that it will provide this needed leadership.

One could hardly conclude a presentation on "Evaluation and Recognition" without direct reference to "Standards and Criteria for the Evaluation and Recognition of Illinois Public Junior Colleges." I am pleased to report that after eight drafts the staff of the State Board is prepared to submit its recommendation to the State Board for its action on December 8. May I emphasize that much interaction has led to each of the eight drafts to which I refer. I am confident, too, that much more extensive interaction will lead to further refinement in the months and years ahead. In the meantime, I should like to leave with you two statements which express the intended philosophy of the document. Located in the preface, they are:

> "The State Board recognizes that the future promises innovations in education which are now only dimly perceived. These innovations will affect greatly all phases of junior college operation. It follows, therefore, that nothing in this document is intended to discourage creativity, adaptibility and change," and

> "In the evaluative process, the basic questions shall always be: (1) Is the philosophy of the college consistent with that stipulated in the Public Junior College Act? (2) Are the objectives of the college consistent with its stated philosophy? (3) Are the stated objectives of the college being realized?"

Student Division . . . ."Student Activities--Student Handbook"

STUDENT ACTIVITIES*

Our program today will be divided into two parts. Part one will be sub-divided into three parts. First, I will make a few remarks concerning the overall philosophical principles underlying student activities in a junior college. Following these remarks, Mr. Shearburn will speak on the topic of, "Student Handbook and the Development of the Handbook." Next Mr. Pleasant will discuss the overall or the desirable program of student activities in a junior college. Part two of our program will be questions and an exchange of ideas from those in attendance. We believe that your sharing with each other information about what you are doing on your campus will probably be the most valuable portion of this program.

I am sure that all of you have heard about or are familiar with the accreditation process. Sooner or later every institution makes an effort to obtain regional accreditation. In this part of the United States we eall it "North Central." As a basis for my remarks I would like to quote from a publication of North Central Association entitled, "Guide for the Evaluation of Institutions of Higher Learning," which states under "Student Organization,"

> .....The nature and extent of student participation in the making of decisions vary among institutions. Whatever the situation, it is of major importance that continuing systematic revision be made for the expression of student opinion regarding institutional policies and that serious consideration be given to student opinion when decisions are made.

Quoting again from the same North Central book in which is devoted one chapter entitled, "Is Student Life on Campus Relevant to the Institution's Educational Past?", North Central goes on to say,

> Most institutions of higher education accept the principle that the total range of a student's experience and not just the formal instructional program contributes to his education. Acceptance of this principle carries with it the responsibility on the part of the institution to concern itself with and to maximize the educational value of all aspects of a students life on campus.

Then follows a sub-heading entitled, "Extra Class Activities." Quoting from that section,

> Important among the college experiences with significant educational value is a well-planned and well-executed program of extra class activities broad enough to encompass a wide range of student interest. The participation of all students in the activities program should be encouraged. A maximum of student control of activities is also to be encouraged with, however, a reasonable measure of faculty supervision and faculty advice available.
>
> As in other areas of institutional activity, the extra class program is evaluated in terms of the nature of the institution and its purposes. It is inevitable that certain student activities have public relation value to the institution. Where such is the case the

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*These remarks were given at the afternoon session of the Student Division of I.A.C.J.C. by G. Robert Darnes, Associate Secretary, Illinois Junior College Board.

> institution must constantly be alert to the danger of exploiting students and of interfering unduly with the academic program. It is imperative that an institution always judge its extra class activities, first in terms of their educational value, and only secondly for their public relations value.

And then quoting from another section from this chapter entitled, "Student Conduct,"

> .....Institutions differ widely in what they consider proper student conduct. The standards of student conduct whould, however, be consistent with the purposes of the institution. Standards should be set forth in writing in a student handbook, for example, as explicitly as possible in order to avoid misunderstanding. Enforcement of student regulations should function as a constructive force in the development of a social consciousness in the personality of each student.
>
> Students typically are assigned some major responsibility for the formulation and enforcement of regulations governing student life. The extent to which students carry out such responsibilities should be consistent with the educational philosophy of the institution.

As you students listen to these remarks, you readily see that the framework has been established for the foundation for a strong student government. I'm also sure you recognize that here is implied that there is much more involved in a student activities program than just an athletic team. Educational leaders recognize the importance of student life and the role of the student in helping to govern that life being just as important as the instructional program.

Now what do colleges say about student activities or student government in their catalogs, becuse as I quoted from North Central, this must be related to the philosophy and administration of the college. Let me quote from one catalog.

> The student government is the organization through which the students accept a large part of the responsibility of student activities, thus making the character of the student consonent with the government of the college. Every student enrolled in the college is a member of the student organization which cooperates through its governing board with the college authorities in obtaining the best administration of student affairs in upholding the highest ideals of the college.

Let me quote from another catalog. "The student council is the governing body of the student government and is composed of representatives of each class and students residing off campus. The president is elected by the student body."

Quoting from another catalog:

> Student Activities. After the student has become oriented in his scholastic work he finds that his college experiences are made more meaningful and valuable by his active participation in some social or extra class phase of the college program. It shall be the goal of the college that each student participates in extra class activities which relate to his vocational objectives, satisfy his social needs, and permit practice in democratic procedure.

> Various opportunities to participate in student government, campus publications, music performances and club programs will be developed throughout the college's years.
>
> College officials will keep a complete calendar of all college events, social or otherwise. Administrative approval will be necessary before such events may be scheduled or placed on the calendar. Classes are not scheduled during these times to allow for campus activities, such as assemblies, club meetings, and other related activities.

Let me quote from a junior college student handbook.

> Club activities are an important part of college life. Students are encouraged to participate in student government and activity programs. Any legitimate interest which may be promoted by club organizations will receive the enthusiastic support of the faculty and administration and your student government.

This should be sufficient to tell you how colleges say they recognize the activities program.

I received a book published by the American College Testing Program entitled, "College Student Profiles." In a study conducted by this organization which included 398 colleges and a total of 238,145 students which, broken down, included 133,882 men and 104,263 women, the students were asked the factors that they considered most important in choosing a college. Forty-one per cent of these students said they considered the intellectual atmosphere as a primary factor; 63% said they considered good faculty; 61% listed high scholastic standing. I should add that each student was permitted to vote six times. Fifty-five per cent rated location; 41% low cost; 43% close to home; 37% listed advice of parents; 23% advice of high school teachers; 33% advice of high school or college counselors. Now under social emphasis 36% listed social opportunities, while only 6% listed fraternities or sororities. Sixteen per cent listed athletic program, while 26% listed the size of the institution.

I saw a study the other day and I regret that I could not find it for identification to quote in these remarks, but a poll taken from students listed subject matter-student clubs as the most popular student activity on college campuses. I hope that these few remarks will set the stage for our discussions on student activities and I will now turn the speaker's platform over to Mr. Arthur Shearburn, Assistant Dean of Student Activities, Triton College.

STUDENT HANDBOOKS - COMMUNITY COLLEGE STYLE*

Student handbooks for a community college serve a definite purpose and need, and they are certainly of a different breed than you will find at a four-year, dormitory-type institution. Community colleges are commuter institutions and, as such, they necessarily must develop a different approach to the orientation of their students to college life. I say necessarily, in as much as the student commutes to the campus, attends his classes, and then commutes home. A student handbook at this type of college must disseminate a great deal of information that the student on a "live-in" campus will acquire by the mere fact that he resides in close proximity to the campus and its activities.

Let us now look at the methods that might be utilized in developing a student handbook on a community college campus. I feel that there are four items or, as I chose to call them, cardinal principles that must be followed. These are:

1. Student involvement and decision making
2. Outstanding photography and art work
3. Effective layout of copy, photography, and art work
4. A reasonable timetable and publication deadline

I will discuss these items in more detail and will attempt to point out some of the pitfalls that might be encountered en route to the distribution of your yearly student handbook. Before we get into the "meat" of the problem, however, I would like to digress for a moment and discuss the chronology of how Triton College arrived at its first three student handbooks. When I arrived on the scene, it was felt that we should have some type of student handbook to issue to our 500 students when they arrived. I had approximately three weeks to put together something that would orient the students to Triton College. Now you must remember that Triton College had not existed prior to this time. I chose what I refer to as the "adaptive method"--some may say it is the "beg, borrow, and steal" technique, and they too would be correct. I directed my first effort at obtaining as many sample copies of student handbooks from established institutions as I could. California is a very fertile area for this type of acquisition. Through a process of drawing information from these acquired handbooks and adapting the various items to our particular situation, I arrived at this beautiful document, and I might add I was about 750 short in as much as our opening enrollment reached 1243. Yes--it was mimeographed and stapled, but it did give the student information about Triton College, and therefore; it served its purpose. To make a long story short, we graduated to this during our second year of operation, and this is our current student handbook.

Enough of past history, let's get back to cardinal principle number one--student involvement and decision making.

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*These remarks were given at the afternoon session of the Student Division of I.A.C.J.C. by Arthur L. Shearburn, Assistant Dean of Student Activities, Triton College.

This is a student handbook. If we accept this fact, it logically follows that the students should do everything required to publish it. I find that this is one of the most difficult tasks--at least in our own particular situation. Triton College students attend classes in the late afternoon or evening, and most hold part or full-time jobs during the day. With this in mind, you can readily ascertain that not much time is available to devote to the publication of a student handbook.

The foregoing time limitations must not be allowed to hinder the publication of a student handbook. Interested students must be solicited for assistance, and they must realize the task that confronts them. The Director of Student Activities must serve as their guide and resource person, but the ultimate decision as to what should be included must purposefully be left to the students involved. They must realize that certain information can be transmitted much more efficiently via a student handbook rather than through other media. Hence, the inclusion of numerous items that also appear in the college catalog.

We have heretofore divided our student handbook into 11 major areas. These are:

The President's Message

About Triton

Associated Student Organization

Student Organizations and Clubs

Looking for Something?--Try Here

Academic Regulations

Campus Regulations

Vehicle Regulations

General Information

Faculty Listing

Calendar

Remember--student involvement and decision making with the guidance of the Director of Student Activities is a key.

Cardinal principle number two states that the photography and art work should be outstanding. It is my opinion that pictures can tell a story. With this premise in mind, we have steadily increased the number of pictures and drawings in our student handbook. Our first printed student handbook had approximately 30 pictures; our present one has 65.

It is necessary to inject a note of caution when discussing photography. Polaroid pictures do not reproduce as effectively as professional-type glossy prints. All of our pictures next year will be taken by a professional photographer. He has been given a list of all pictures we desire, and we have entered into an agreement with him for his services. We hope that we can do more with art work in the future.

Pictures can make your book--use good ones and be careful in their selection.

On to cardinal principle number three. This concept has to do with an effective layout of the copy, photography, and art work. A publication may be excellent in its copy and pictures, but in order for it to effectively present the intended story, it must be laid out well.

If you have no organization that is able to do this, again I say that it is best to go to the outside and have it done by a professional. This professional touch makes the entire book a thing of beauty--a publication of which your student organization can be justifiably proud.

The last, but far from least in order of importance, is cardinal principle number four which states that you MUST--I repeat MUST establish a reasonable timetable for the completion of the book. My perception of a student handbook is that it must be available to the student at the time he pays his fees. This is necessary if he is going to feel a part of the institution. It also makes those first few weeks a little easier in his totally new environment.

The students, faculty members, administrators, and anyone else that has anything to do with the copy that goes into the handbook must understand that they have a deadline to meet--and meet it. The meeting of pre-established deadlines enables the students in charge to accumulate all of the material and adequately prepare it for a layout specialist. He, too, will have a deadline inasmuch as the printer is waiting. From this you readily see that all the parts have to fit together perfectly to enable the printer to get the finished product out on schedule.

The printer is someone that you have to work with very closely. Always--and I mean always--get proof copies and scrutinize every letter with the utmost care. The importance of this is obvious. You want to produce as nearly a perfect book as possible. Even with this close scrutiny, you will find that errors will creep into the finished product.

I would suggest that you determine, with your printer, when he will start the actual printing so that you can be present. If there are any discrepancies in the first few copies, you can determine it at once and make any necessary adjustments that might be possible.

Finally, insist on a delivery date and hold the printer to it. Of course you realize that this is directly related to your timetable, and YOU must have the material ready for him if you expect him to meet his delivery date.

To summarize, I have stated four cardinal principles to follow in student handbook production.

1. Student involvement and decision making

2. Outstanding photography and art work

3. Effective layout of copy, photography, and art work

4. A definite timetable and publication deadline.

From all indications you have listened well and patiently. Undoubtedly there are those among you who do not agree with me about my proposals and conclusions. That is all well and good but remember the story of Curbstone Johnny. He was crying loud and long when a kind old lady offered her sympathy, "There, there little boy, I wouldn't cry like that if I were you."

Curbstone Johnny looked up and barked, "You cry your way old lady, and I'll cry mine." With that, I close. Good luck on the production of your student handbook--Community College Style.

STUDENT ACTIVITIES*

Any student activities program must of necessity be based upon sound philosophical foundations, leading to the achievement of overall objectives of the institution of which it is a part.

Since student organizations are an integral part of the student activities program, organizations which provide an opportunity for students to participate in activities on an extra-curricular basis as well as those which supplement and enhance classroom experiences should be welcomed.

Students should be urged to identify themselves with campus organizations and activities as active participants, at the same time creating an awareness of such identification as a part of their educational enrichment.

Broadly speaking, the objectives of any student activities program should be to:

1. Provide opportunities for the development of leadership and responsible citizenship through effective participation in student affairs;
2. Provide and stimulate acceptable and worthwhile outlets for the recreational needs of the student body;
3. Provide opportunities for the development of close, harmonious social relationships between students and faculty;
4. Provide educational experiences which will parallel the curricular program, leading to the sound educational progress of the individual student;
5. Provide social and educational programs which will stimulate the cultural life of students and of the community which the college serves;
6. Provide stimulation and encouragement for personal development of the individual student.

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*These remarks were given at the afternoon session of the Student Division of I.A.C.J.C. by James Pleasant, Director of Student Activities at Illinois Central College.

Organizations whose composition and activity structure are such as to warrant themselves responsible for their actions and whose existence and purposes are mutually in accord with those of the college should be granted permission to function as recognized student organizations.

Any student activities program should be founded upon the ideals of democracy, and as such should derive its strength and vitality from the opinions, backgrounds, and purposes of the individual student. The freedom of association and the spirit of tolerance are essential among students and student organizations. All organizations should enjoy full freedom to recruit and to select members from among the student body on the basis of scholarship, skills, interests, or other bases consistent with the aims and ideals of the organization.

Organizations whose criteria for membership selection is limited to closed or secret selection procedures based upon the vote of the group must be prohibited in the state of Illinois at the Junior College level, as per the School Code of Illinois, 1965.

In keeping with sound business practices, each campus organization should meet minimal standards of operational procedure:

1. Maintain a complete and up-to-date copy of the constitution and by-laws;

2. Select interested faculty advisor (s);

3. Plan social events;

4. Propose a budget for each ensuing school year based upon present success and anticipated growth and advancement;

5. Maintain an accurate set of meeting minutes along with a record of all receipts and expenditures.

In return for the above, it should be the responsibility of the Director of Student Activities to assist, to counsel, and to advise all student organizations through conferences, interviews, audits, and reports for purposes of ascertaining the stability and the efficient operation of organizations.

The program of social activities at the college level is a vital part of the college milieu, oriented toward the ethical, the intellectual, the recreational, and the cultural pursuits.

The activities program must reflect careful planning on the part of the Director of Student Activities to include mixers, dances, film and lecture series, and concerts, to name but a few student-oriented events.

Insofar as the community college today is directly responsible to the community of which it is a part, the activity program of the college should of necessity include within its activity calendar events which are open to the public for their participation and scrutiny. At the same time, such programs for community consumption help to cement school-community relationships, so long as the program director is very careful to choose presentations designed for and aimed toward cultural improvement.

This director realizes that the above mentioned theory of a marriage between school and community rather than a complete divorce between the two is in direct contrast to theory which has existed for many years and which is still held sacred by many activity directors today.

The activities program of any college today should utilize completely the facilities of the school as well as those of the community. By so doing, students develop a healthy attitude toward and respect for placing themselves in a favorable light, so long as they are governed by the basic rules of self-discipline which should exist in an on-campus activities program at all times.

In summation, so long as the activities program in any college should be student inspired, student developed, student evaluated, and student centered, and student oriented, the demands upon the Director of Student Activities are greater today than at any other time in our history. The relationship between students, student organizations, and the director determine the overall effectiveness of the activities program.

(Editor's Note: Letters were mailed to each college requesting materials representing student activities for a display at the conference. The response was excellent and a display was made which covered the length of the hotel outer lobby. The display was made under the supervision of James Pleasant, Director of Student Activities at Illinois Central College.)

Selective Service . . . . John H. Hammack
Illinois Director of Selective Service

Local boards may now consider for Class II-A, not Class II-S, those registrants who are enrolled in junior colleges and who are pursuing vocational courses not leading to a baccalaureate degree. The SSS Forms Nos. 109 and 109-A should not be used by the junior colleges in reporting these students. They should instead prepare mimeographed form letters containing the following information: (a) the registrant's name and selective service number, (b) when the registrant commenced his training, (c) when the training will be completed, (d) the course he is pursuing, and (e) that he is satisfactorily pursuing a full-time course of instruction and is progressing on schedule.

The II-A classification will only be granted for a period of up to one year. The junior college should, on the anniversary date, submit a new letter advising the local board that the registrant is still in full-time satisfactory attendance and the date the course is to be completed.

Friday, November 17, 1967

BANQUET

Presiding . . . . Frank F. Fowle

Music . . . . Illinois Junior College Music Honors Group

Address . . . . "The Public Community College - America's
Answer to Higher Education for All"
Julio L. Bortolazzo
President, College of San Mateo

The history of American public education is actually the story of derivations--of tracing the roots of our system back to the European origins. To establish this point as fact, merely ask yourselves: "Where, indeed, did we get our kindergarten, elementary school, high school, and collegiate patterns?" From your own knowledge of your system, you will have to say that we have developed, embellished,--perhaps improved--from the framework we inherited.

But the Anglo-Germanic educational tradition will not yield one word about the community junior college. And there is a good reason.

The public junior college is America's original contribution to educational philosophical thinking. And, indeed, this native product is just now being exported, where practicable, to Canada, Latin America, Europe, Africa, and Asia. And in staid Britain, long the stronghold of the philosophy of higher education only for the elite, extension of opportunity in the American pattern may become a reality. The Robbins Committee on Higher Education, which visited the College of San Mateo--among other American institutions--a little over five years ago, has filed a report described in the London Observer as "A landmark in social history". The Robbins Committee, sounding as though written by an American public junior college advocate, states:

> ". . . All who are qualified to pursue full-time higher education should have the opportunity of doing so."

And one of the members of that Robbins Committee, in his highly complimentary comments concerning his visits to College of San Mateo, remarked on the comprehensive nature of the curriculum, including "cosmetology. . .which is not the study of the cosmos."

The community college is the newest addition to the educational establishment. It is in its second half-century. The first junior college was established in 1901 in Joliet, Illinois. In California, Fresno was our first junior college; it began in 1910 with 20 students and 3 instructors. Now, 57 years later, we have 80 junior colleges with over 500,000 students, 200,000 of them full time--75% of the lower division enrollment in the state. California anticipates 100 junior colleges by 1975. The community college is unique in its relationship to the educational establishment. It is American, through and through, as American as baseball, Thanksgiving, apple pie, and skateboards. Again, may I stress the elementary school, the high school, the college, and the university have all been inherited from their European beginnings. They have undergone adaptation and refinement and improvement; they have been "democratized." But they are all basically borrowed. I like to think of the junior college as an integral part of the "great American democratic tradition".

When it was time in 1963 to make a dedication at the opening of the new $20 million College of San Mateo, I settled on a phrase that I think is significant. It was this: The junior college stands for "the dignity of all men, and the dignity of all work". This summarizes the basic philosophy of the community college. Please note again: all men, not some men -- all work, not some work.

The community college in California began as an extension of high school, usually in areas where there were no colleges or universities--where students could not afford to attend college--or where students were needed at home and could not go away to school--or where influential families whose sons or daughters could not get into the back door of the university started their own colleges. The high school tradition has had a real effect on the community college in a number of ways. The effects of the high school tradition include:

1. Colleges that are tuition-free, or virtually so.

2. Colleges that are "open door"--that all may attend.

3. Primarily, locally-supported and locally-controlled, with a single board of trustees--elected--or perhaps two boards, one responsible for kindergarten through the eighth and perhaps another responsible for grades nine through fourteen.

4. An emphasis on teaching--not on research nor publications--but on teaching, with the master teacher and master motivator concepts paramount.

5. Colleges with an emphasis on student personnel, and on counseling and guidance; with recognition of the individual student.

6. Comprehensive institutions, including college transfer, vocational-technical programs, general education, adult education, and more recently community education programs.

The growth of the community college movement has been phenomenal--and we haven't seen anything yet. From 1636 (the opening of Harvard College) to 1965--a little over three centuries (329 years to be exact)--we have built 2,100 colleges in the United States. By 1975, we will need to construct twice this facility capacity--twice the facility capacity in this decade as in the last three centuries. The community college is our only real hope!

Part of this expansion is in response to the 1963 report of the Educational Policies Commission of the NEA which called on the United States to re-define its concept of universal education to include at least two years beyond the high school.

I reiterate, the community college movement is on the march, not only in most states in the United States, but in Canada, Latin America, Europe, Africa and Asia as well. To many of these areas, the vocational-technical function of the junior college is its most attractive aspect.

To illustrate our growth: ten years ago the College of San Mateo enrolled 2,000 day students. In the fall of 1967, the College enrolled 9,000 day students and 13,000 evening college students. In 1963, we opened one $20 million campus for a capacity of 8,000 students. Now we are constructing two additional colleges, Cañada and Skyline, costing $15 million, Cañada to open in the fall of 1968 and Skyline the fall of 1969. These will expand by phases: 2,000 students in the first phase, then 4,500, and finally 8,000 students each. This expansion is outlined in the master plan for the San Mateo Junior College District which provides for the remainder of the twentieth century. It calls for four junior colleges, each with a capacity of 8,000 students--and San Mateo is the third smallest county in area in California!

Under the California master plan for higher education, a tri-partite system for entering freshmen has been established. The University of California takes the top 12 1/2 per cent; the state colleges the upper 33 1/3 per cent; and the junior colleges the upper 100 per cent. We are very pleased that all of them can come to community colleges. In fact, 30 per cent of those qualified to enter the University of California and the state colleges attend junior colleges. By 1975, college enrollments in California will grow 228 per cent over the 1958 level. This means an additional diversion of 75,000 students to junior colleges by 1975. This will be achieved with the unqualified and enthusiastic support of the University of California and the state colleges.

Now, the College of San Mateo is not unique; its growth pattern is typical of California and of other states especially Illinois. I characterize the community college movement as "thyroidal" in its approach: it is alive, vigorous, vital, going off rapidly in all directions--literally. Sometimes it goes kicking and screaming, sometimes vociferously wrong--but making the healthy mistakes that come from venturing, from activity, rather than passivity. The junior college movement is creative, responsive, exciting, and concerned. Its key characteristics must be: Experimentation . . . Creativity. . .Innovation. We have been characterized as "thyroidal"; we certainly are not "hemorrhoidal"! We must never become hemorrhoidal.

Let's look at the functions of the community college as they have evolved. First, the college transfer function--through the "open door" we admit everyone with a high school diploma or who is over eighteen years of age. This is a very ambitious goal--the most ambitious in the history of higher education. It demands a well-developed basis of understanding and articulation with senior colleges and universities.

In California, we have been very successful in community colleges with those students who were qualified to enter colleges and universities as freshmen. They have done as well in four-year colleges when they have transferred as the native students. With those not qualified to enter colleges as freshmen, we have not been as successful. But we have salvaged literally thousands who could not have gotten into the back door of the university of state college as freshmen. This is extremely important today.

At the College of San Mateo, we have careful records from the date of our founding 1922 through 1967--forty-five years of study. Continued research in depth is needed. Our study of grade-point averages shows that our students who transfer to the University of California achieve a GPA only .40 lower than that at College of San Mateo. The largest number of transferees goes to San Francisco State College, where their GPA is .01 higher than that achieved at College of San Mateo; and the second largest group transfers to San Jose State College, where their GPA is coincidentally also .01 higher than that at College of San Mateo.

Obviously our students have done as well in upper-division work as native students, now why?

Our emphasis is on master teaching. We have no teaching assistants. We use a multi-track system in English, math, and the sciences. We have small classes. We have remedial courses taught by specialists. We have three modern reading laboratories with the latest technological equipment which the students attend with no credit. (Isn't it strange that high schools and colleges have put so much into foreign language laboratories without the same kind of effort in reading?) We offer skilled counseling and guidance, and we have a comprehensive testing program. Motivation is the pivotal word in guidance. We try to motivate the "late bloomers". The concept of the "late bloomer" is not original with the junior college. It was first stated by Dr. Charles Cole, the President of Amherst College, a prototype liberal arts college if there ever was one, but it applies to the junior colleges clearly.

A second important function of the community college is vocational-technical education, or occupational education. It is most difficult for a student to make a realistic vocational decision in high school. Often the decision is made at the end of the tenth grade. His decisions at that level are often based on factors other than ability and interest; most often the socio-economic status of the family. Consequently, the junior college became a natural addition to the high school in this important area.

Most community college vocational-technical programs are based on (1) general societal needs (for example, business, trades and industries, health and paramedical vocations, engineering, and so forth); and (2) on specific community or area needs. For instance, at the College of San Mateo we offer an extensive aviation program because there is constant demand from the San Francisco International Airport for trained people from ground crewmen to flyers. We also offer a comprehensive electronics industries which are microwave technology, to meet the needs of electronics industries which are centered in our area.

Despite meeting vocational-technical needs, California junior colleges are comprehensive and diversified. There are very few specialized colleges left, and the trend is away from specialized colleges. Los Angeles Trade-Tech. College is a trade and technical school, one of the few; Pierce College in Los Angeles was an agricultural college. . .but no longer. Laney in Oakland was a specialized vocational-technological college but is now comprehensive.

It is important to realize that the students are all first-class citizens. This supports the concept of the dignity of all work. If there is one thing above all that junior college people must retain, it is this concern. . .for the students, for the community, for the country. We must care about what happens to our ideals, to the aspirations of people, and to our nation in this desperate struggle for survival. We must believe--and demonstrate through our curricula and our handling of students: that there is dignity in all work. Each man has a contribution to make for himself, his family, his society. If we ever assign levels of worth or respectability on income, number of academic degrees from preferred institutions, on the color of a man's collar, or the calluses on his hands, then we shall have thrown away our priceless democratic heritage. I must emphasize, as strongly as I can, my previous point concerning our vocational and technical programs. Our society cannot exist if our educational output consists only of purely degree products. Our society cannot exist if we ignore the imperative of our time. . .the need to supply more and more highly trained technicians to make our complex economy go. The manpower problems cannot be ignored. They are irrevocably ties to the question of survival.

The comprehensive public junior college can provide the answer. . .in a way that no technical institute alone can. In training, and in re-training, of skilled workers, the junior college can offer an unmatched combination of general education for citizen competency and of vocational education for the individual's and society's welfare.

There are also some very important educational reasons for vocational-technical education in the comprehensive junior college. Students change their educational and vocational decisions based on the empirical test, the tryout. A student who had decided on a career in engineering finds he can't do the math and physics required--but he becomes a skilled draftsman. Another who intended to become a microwave technician finds the physics beyond him, but he discovers his place in manufacturing technology. An AA or RN aspirant may, instead, become an LVN or Nurse's Aide or vice versa. Vocational choices are at the base of our so-called open-end programs, too. A student may study electronics or aviation, for example, and under the open-end program go into industry or on to college for a baccalaureate degree. In these, the state colleges transfer our credits unit for unit to the four-year program.

Vocational-technical education is important becuase the world of work is in a truly dynamic state. Dr. Grant Venn, of the U.S. Office of Education, writes about students' abilities in his book, *Man, Education and Work*. I highly recommend it to you. (I find it significant that this study of "work" was sponsored by the American Council on Education, an organization dealing with problems of higher education. I was pleased to participate as a member of the Advisory Committee). Dr. Venn says:

> "The educational system strives to give each student every opportunity to develop his talents to the highest possible level. The highest possible level is always defined as the highest possible level of academic or formal education. The "B" or "C" student in high school whose real attitude and ability potential are such that he would find them fully expressed as an engineering technician is nonetheless guided into engineering. Then when he becomes an engineering dropout, holding some low-level job, it is considered a shame, but somehow not the responsibility of higher education. Education pays lip service to the importance of providing an educational response for the

> wide range of student aptitudes, abilities, and interests, but largely limits the response to general or academic studies of varying degrees of rigor."

For the first time in the United States, the service vocations predominate. That is, there are more people employed in non-production vocations as contrasted to production vocations. This trend will continue and accelerate. It is another revolution which is referred to as the "knowledge revolution". The knowledge revolution will also change the "productive" vocations markedly. They are being changed now, by automation and by cybernetics. Of this we are sure: The day of the unskilled worker is virtually over. Constant evolution of our programs will be needed.

The College of San Mateo has published a study, The Job Ahead, which relates the job opportunity problems of San Mateo County to the planning of our three campuses. As I mentioned, the new campuses will be built in three phases. Most vocational-technical programs on the new campuses will begin in the second or third phases. Over forty vocational-technical advisory committees keep us in close touch with reality in occupational education--with the realities of needs, training and placement and re-training. The federal government is concerned about technical preparation, too, and has programs like the Manpower Development and Training Act to prepare workers for changing vocations. Under MDTA, training can be fully financed by the federal government for programs set up in cooperation with a State Department of Employement. At the College of San Mateo, we have placed 70 per cent of our MDTA trainees, many of them previously unemployed or welfare cases--some third generation welfare families. Out MDTA program embrace all types of jobs and training runs from two weeks to two years. The types of jobs we have taught these people include: groundskeepers, clerical workers, electronics assemblers, technical illustrators (now one of the two-year courses), service station attendants, hospital ward janitors, hospital ward clerical assistants, hospital ward maids, nurse's aides, housekeepers' aides, grocery checkers, and motel and hotel maids (a one-week course). These people have become productive members of society. Vocational training is one attack on a serious welfare problem.

A third function of the community college is the student personnel function. Each student has a skilled educational and vocational counselor for two years. The counselor makes a careful evaluation of the student's educational record from high school and of results both from high school and college test batteries. He analyzes the student's educational and vocational decisions, if the student has made any.

The trend is toward a pre-college year counseling period. At the College of San Mateo, we bring our counselors to the campus three weeks before classes begin to talk with students. Each student is guaranteed a half-hour counseling session. . .longer if he needs it. Eighty-five hundred students registered before the fall semester began.

We do not have psychiatrists as counselors, but we have fine referral services--testing, services, psychiatric referral services, and placement. Fifty per cent of our students work. We not only participate in the federal programs, such as College Work-Study and the vocational work-study programs, but we try to place students in jobs that will be compatible with their college work.

Our students organize their own government. I like to call it "student activism"--because they are truly active; not in the typical rah-rah activities that I remember so well in my college days--we play football and perhaps three or four hundred turn out to watch--only those who are interested. But for a speech or debate by a prominent figure, we may draw a thousand. Our students have participated actively on a College Rules Committee in defining "time, place and manner" which makes College of San Mateo one of the freest junior colleges in America. The students also have a completely free press. I am intrigued with the student participation in your Illinois Association of Community and Junior Colleges. You even have students on your Board of Directors. We in California will be watching this development very carefully.

Adult education is a fourth function of the community college. The adult education revolution has become an integral part of the community college movement. It opens education to students of all ages. We offer adults a diversified program, such as courses leading to the Associate in Arts degree. Some programs, such as our Industrial Management Program, are primarily an evening college program for adults. In vocational-technical programs we are much concerned with both pre-service and in-service training. The in-service training, or re-training, is now greatly needed, and we offer short-term in-service programs for additional training or for new skills.

The fifth function, and a relatively new dimension in the community college, is the Community Education function.

There are many non-credit courses--often given as cultural programs. "Man does not live by bread alone"-- and so we offer art, music, and community education programs--we are organized as a cultural center which includes San Mateo County Historical Museum--which is a "new" function for California junior colleges. These usually take the form of comprehensive programs and forums with discussion sections, speakers, and musical and art events. We schedule these in series--for example, a series of events on critical world, national, state, or local issues. We bring to our campus outstanding speakers such as Sir Alec Douglas-Home, Dr. L.S.B. Leakey, Dr. Rollo May, Dr. Jules Henry, Dr. Eric Fromm, Dr. Max Lerner, Dr. J.B. Rhine, William Winter, Dr. Ashley Montague, and Dr. Hans Morganthau. We plan series of community education programs such as the "Anatomy of Extremism," or "The Cutting Edge of Prejudice," or perhaps a series on "Problems of the Single Parent". We held a workshop for all Head-Start participants, not just teachers and administrators. Very important now (in our area) is a series on suburban planning--all phases of planning. This is the community college as a cultural center.

Traditionally in American higher education, there has been little attempt by colleges and universities to reach the public except through extension offerings and the prosaic arts and lecture series. Community Education, by contrast, sees the entire geographic community as its campus and the entire people as its student body. It recognizes the responsibility of the college to gain response from people in all walks of life who often are trying not to be involved.

Community Education is truly educational in nature because it seeks to awaken the individual citizen to an increasingly better understanding of himself,of others and of the emergent forces of the culture in which he lives. It thus aims at evoking a new tone of mind and style of life in a number of individuals sufficient to infect the whole. Further, it aims ultimately at obtaining the full participation and commitment of the whole people so that, increasingly, the human needs of the community are being served by its members. It aims at creating an organism of interdependent parts, each contributing its uniqueness to the full functioning of the whole. This is in contrast to the apparently increasing tendency for fragmented communities to look at state and federal agencies to come into the community and do the work that local people should be doing.

In other words, Community Education is seen as another revolutionary force that will make the college a catalyst in the emergence of the true human community within the geographic community. The college becomes "available" to all facets of the community and thus provides a bridge between those in need (material, psychological and spiritual) and those who have the skills, time and money to satisfy that need. It recognizes that all persons are needful in one way or another and that the fundamental need that they all have is the need for one another--for the uniqueness that is the special gift to each individual.

Thus Community Education aims at the development of an open society where each is free to give of himself without the fear of rejection. The greatest therapy (so needed by an alienated people) arises from the receiving of human concern by a person in need and the giving of himself by another in satisfaction of that need. In the process, both are healed, re-created, re-educated; both find new life, new identity, new meaning. It can easily be seen that Community Education can be the fulfillment of the great values, hopes and dreams of the Judeo-Christian tradition that has run like a golden thread through the fabric of Western Civilization. Similarly, it can be the fulfillment of the dream of American democracy. These would be incredible statements were the community college movement not well underway. But, with a network of colleges, each located in contiguous communities, there is emerging a profound possibility that the present loss of meaning can be converted into a dynamic that can revive the culture's institutions by reviving the individuals in them.

These, then, are the functions of the junior college. That is its past and present. Now, what of the problems of the future? Let me remind you again that the junior college movement is relatively new, is still in the formative period. "Thyroidal, I hope."

Since the community college's goals are the most ambitious in the history of higher education, it faces many serious problems ahead. Let me state them briefly:

1. The "Open Door." This is our greatest strength--and our greatest weakness. Everybody, or practically everybody, get his opportunity, whether he qualifies or not to enter a traditional college or university. Many succeed--but many also fail. We have dropouts, many of them (from 10 to 25 per cent or more) in the first semester. Some of our colleagues want to alleviate the dropout problem by selective entrance, therefore eliminating many applicants from admission. Others would be less severe, but would put students with mediocre high school records or less on probation immediately--and give them a very limited time to become "collegiate". This I call the "revolving door"--in fast and out fast. The open door must remain truly open. The community college too must remain tuition-free. However, we must take off our rose-colored glasses and make realistic personnel studies.

Research is needed to develop predictive data, to evaluate dropouts and the real reasons for dropping out, to evaluate our curricular and instructional programs, and to evaluate our student personnel programs. The "old" answers no longer suffice. We need to develop new programs of general education. In the meantime, in spite of many pressures, the door must remain open--wide open.

2. The community college is a diversified, comprehensive institution. Some junior colleges--too many of them--are beginning to pattern themselves after the four-year colleges and universities. They are going academically overboard. The vocational-technical function is eroding by default. I am concerned about this, because in addition to providing the preferred route for those in the local community who wish to transfer, the junior colleges have been assigned at least two very distinctive roles; (1) providing two-year (or shorter) vocational and technical programs for students who seek to prepare for immediate employment; and (2) offering adult courses, since the junior colleges are theoretically more responsive to the needs of the community.

Reminding ourselves of our functions and our assigned part of the diversified system may help to dispel any notion that we have reverted to lower-division work only. I have real concern lest a minority in our midst convey the impression that we are two-year universities. We cannot devote ourselves to the single task of preparing students for transfer work. Nor can we assume an increasingly negative attitude toward our other functions. There are, most unfortunately, some who profess to speak for all academicians, when in reality they speak only for themselves. They barely tolerate the presence of their fellow faculty members who are so-called "non-academic". They look down their noses at the non-degree specialist who teaches in the vocational-technical programs. They apparently believe that the entire college is contaminated by fall-out from these terminal programs! To all who are in the academic areas, I issue a challenge: Use your creative energies, your disciplinary backgrounds and preparation to develop strong general education programs for the non-academic majors. Let us throw our combined weight into the job of giving our terminal students the kind of social and political literacy that is equal to their vocational preparation. Not one of us can afford to ignore this challenge to prepare all of our students for full, active participation as citizens.

3. A distinguishing feature of the junior college is the master teacher concept. The institution is the home of the master motivator. We have serious problems. One is the supply of teachers. Where are we going to find them? This problem is everywhere.

Our paramount purpose must continue to be the teaching of students, and I, for one, do not think research and publication are incompatible with classroom teaching. Up-to-date faculties must stay alive professionally. Academic atrophy sets in when faculty members are content to sit on their degrees. The instructor who has read nothing in his field since he left college, who retreads the same material year after year, and who uses the same "perfect" test for his entire career is a drag on his own institution and on the whole teaching profession. Contrast him with the teacher whose students profit from his enthusiasm and his growing knowledge. He does research for his own and the students' enlightenment. He may publish, not for a raise in rank, but as a contribution in his professional field. He puts his emphasis on the teaching-learning process which is basic to the junior college master teacher concept. "Publish or perish" has no place in our structure.

As we assess ourselves, we should take a long look at this whole problem of research and publication. In fact, it may be that encouragement and recognition are long overdue. The climate for continuing growth by faculty members could probably be improved. If we are looking for one of our directions, it could well be somewhere through the haze surrounding programs for research by junior college faculty members.

But, again, teaching must remain our primary function.

4. The Student Personnel programs present future problems. Some characterize this function as "spoon-feeding". They say, "Let the students sink or swim on their own." Some feel the counselor should be a psychologist; some, that he should be a program advisor. Some, both.

At San Mateo, we select counselors from among our master teachers, and we assign them to counsel students in their educational and vocational fields. We choose a counselor for his real interest in students' problems. We have a pre-service and in-service program in counseling for all teachers, and we encourage the best teachers who show interest to enter the student personnel field. (Our counselors are also teachers--not administrators. We give them credit at the rate of one unit of teaching load for each twenty-five students.) Most counselors have a maximum of six units (15 unit teaching load) or 150 counselees.

5. Another problem of the future is community college governance. Junior colleges want to be separate from elementary and high school districts. In California we have established junior college districts, but separation from elementary and secondary is still a problem in some states. In California locally elected boards of trustees are the community college policy-makers. The community colleges are primarily locally supported and controlled. Our local support amounts to 70 per cent.

In governance, it is important that community colleges remain community oriented and have a real sensitivity to local needs. We hope that state support will never be more than 50 per cent of our financing, so that we will continue our local autonomy. However, local control means far more than a determination of fiscal policies on the community level. Local control is significant as it affects curriculum, for there must be real sensitivity to change, and response to the needs of local industries and businesses. The public junior college, as a community institution, is not strangled by the red-tape of governmental hierarchies. Local citizens, who comprise the membership of our vocational and technical advisory committees, help us to keep the finger on the public pulse, to reflect the economic needs through curricula, and to provide several tracks toward educational goals. We are competitive in our district--competitive in the best sense of the American tradition of competition. Foothill College at nearby Los Altos Hills thinks it is the best, and we know we're the best. Competition of this kind has been good for both schools. But I repeat: Local control is imperative.

You in Illinois have been operating with the Illinois Junior College Board for at least the past two years. I think that you have made a good start in solving a very difficult problem; namely, that of maintaining local college autonomy and still achieving state coordination. We in California face the problem now with a fifteen member board to be appointed by the Governor before January 15, 1968, and to assume responsibilities on July 1, 1968. Parenthetically, Dr. Leland Medsker, formerly from Illinois and now at the University of California and whom I consider one of our most eminent authorities on junior college education, was the consultant to both of our states.

I am convinced that the most important function of the state board must be coordination and not control. I heard a junior college spokesman from another state recently make the following statement, "Coordination is the basic state responsibility and must be based on leadership and not control." However, he continued, "Responsibility demands authority." Analyze this statement for it bothers me. I agree with him that coordination is the basic state responsibility and must be based on leadership and not control. But, in the second part of his statement I ask, How much authority? Of course, too much authority could lead to control. The two parts of his statement could be in conflict. Coordination according to the dictionary is "a harmonious combination." This harmonious combination can be achieved only by the state board and local college boards working together. Coordination requires a minimum of state dicta and a maximum of cooperative conclusions.

I think that your law creating the state board is much more specific and, as a result, better than ours. In California, we have not as yet spelled out the functions of the separate board. It assumes the functions of the State Board of Education which has never exercised the powers provided it by law. If it had, it would have been in complete control of the community colleges long ago. This problem concerns many of us very much.

As much as I favor some sort of state coordination of curricular programs, I would insist that this procedure must not stultify local initiative in innovating instructional programs. Local experimentation must be encouraged and enhanced. Bureaucratic state planning will never provide the impetus for creative curricular innovation. State board leadership in this critical area must encourage local curricular experimentation.

Finally, we must not shriek at shadows. We are sophisticated enough to resolve our problems by using the intellectual processes which are characterized by more light than heat. Local control of the community college is imperative--it must be jealously preserved.

In talking with your Gerald W. Smith, Executive Secretary of the Illinois Junior College Board, this morning, he summarized what he considered the three priorities in order for the state of Illinois:

1. Programs -- comprehensive curricular programs must be provided throughout the state in the real tradition of the community college, and these must be locally developed.

2. Building and Facility Programs -- to implement the curricula, and again these programs must be locally planned.

3. State Coordination of Both -- cooperatively developed with local boards.

I agree with Mr. Smith and his defined priorities. He also advised me that he was establishing an advisory committee of college presidents to consult with him concerning district problems and their relationship to state planning and coordination. Again, I concur with Mr. Smith. We in California will be watching you in Illinois as you develop your state governance pattern.

6. The role of the faculty is a problem. As the community college today is organized, it is often more oriented toward the high school than to four-year colleges. Faculties in junior colleges have traditionally been more passive than the typical college faculty. They have not been involved in policy-making. The trend is toward more active participation by the faculty. In California, the Faculty Senate is now written into the State Administrative Code. The more progressive colleges have been working in this important area for several years.

At the College of San Mateo, we have a permanent committee structure. At the top is the Faculty Senate, representing all the teaching faculty, to which members are elected. They take a real part in administrative decision-making. (I want the contributions that faculty members can make--administrators do not have all the ideas. Often the best suggestions come from faculty members who see a situation first-hand every day.) In faculty participation, community colleges have an opportunity to make a real contribution to college governance. We must expect that administrators and teachers will differ in their viewpoints. But we also must create a balance of power in which each has respect for the other. We must avoid the cumbersome structure of committee pyramiding that slows down progress. The trustees in the final analysis make policy determination.

7. You must also plan for the future: there is real need and no alternative for effective planning. This means state planning and district planning. California has a well-defined master plan for higher education. The San Mateo Junior College District has its own plan for the remainder of the 20th century. Each district will have to develop a plan between the universities, state colleges, and community colleges. Another important element is to determine the optimal district geographically, on a realistic basis. A junior college may serve a regional area with quite different boundaries than those already established for elementary and secondary schools. You need to plan for enrollment projections, acquisition of sites, educational specifications--educational planning--and financial planning.

The faculty must have a voice in planning. As I mentioned, an important element of planning is a division of labor. The board of trustees, and the administration, the faculty, and the architect--each has a proper role in planning a new campus. We don't let our architect plan our programs, any more than we tell them how to design buildings. Let me remind you that it is easier to build buildings and campuses--much more difficult to plan significant educational programs. Program building must precede architectual planning and construction.

Planning is a complex process. Foresight is necessary. You must write into your plan flexibility for the future. You must be able to accommodate new programs. For each campus, you must envision vocational-technical programs that are particularly fitting in its location. "Crash" facility planning is expensive both in the short and long term. One additional year for planning may be imperative--take it. The keynotes in facility planning are: creativity, experimentation and innovation. In your campus plans, work toward planned functional and architectural expansibility. And let me voice a plea for beauty on your campuses. Beauty is often embodied in simplicity, because simplicity stands the test of time. Beauty is not more expensive.

8. Finance is a serious problem to be faced. The community college is an economical approach to lower-division education, both in capital outlay and operations. It cannot be cheap. To do its job, the junior college must be a first-class institution. First class education costs money.

The responsibility for higher education is traditionally that of the state. In California, the community colleges are not true partners in higher education: state support for junior colleges amounts to only 32 per cent . . . for the university, 66 per cent . . . and for the state colleges, 88 per cent. By 1975, junior colleges are to receive 45 per cent state support. No progress toward that goal has been made.

The community college is traditionally locally supported and controlled. Our local property taxes are already high, and they must support elementary and secondary schools as well. With 75,000 more students being diverted to the junior colleges in California by 1975, we look toward 45 per cent of our support from the state. This demonstrates a need for a cooperative agreement between the local boards and the state. It is a serious problem that lies ahead.

We anticipate that more federal aid for community colleges will be forthcoming. We have hopes for a Community College Act (promoted jointly by the California Junior College Association and the American Association of Junior Colleges; we hope that your association will also become a co-sponsor) which will be modeled on the Land Grant Act of the 19th century for State Universities. However, none of these funds should be at the price of federal control and loss of local control.

9. Another future problem is academic freedom. Recent studies indicate that community colleges are more like high schools than colleges, in regard to campus freedom. Academic freedom is imperative. The community college must be a market-place for ideas. In "California terms," academic freedom, much sought and much discussed, is smog-laden in too many places. All too often, we don't really worry until the smog moves in. Then, we rub our eyes and ask, "What happened?" Teachers, and the institutions they represent, are prime targets of the smog-makers of left and right. It is very clear that the one aim of extremists is to neutralize teachers. Frightened into submission, they would then teach the most exciting controversial issues in the most sterile fashion.

How do we protect academic freedom? Who carries the fight? And against whom do we take measures of defense? First, we protect academic freedom by knowing what it is: freedom to teach all sides of an issue in frank and open discussion. Most certainly, the principles of academic freedom should be clearly defined and thoroughly understood in every junior college. Our first defense is a well-defined position. Second, we protect academic freedom by acting responsibly. Opinion should be clearly earmarked. And no classroom should be the private platform for the instructor's prejudices or political beliefs to the exclusion of opposing views. Freedom to teach is accompanied by freedom to learn.

The fight for academic freedom is everybody's business. The faculty member first and always must fight for himself. The administration must not only support a threatened faculty in principle but in practice. An all-out, continuing effort must be made to arouse the citizens to the far-reaching consequences of gagging teachers. When one man loses one inch of freedom, everyone loses. Freedom is everybody's business.

Whom do we fight? Anyone who attacks our right--our obligation to free, open discussion of controversial issues which fall within the broad scope of our instruction. Whether the attack comes from the extremes of right or left, we must rise to the challenge whenever it comes. If once we weasel, if we ever apologize for daring to expose our students to the search for the truth, then we have lost. The road of academic freedom does not head in a new direction. If we are to survive the sixties with our freedom intact, we must clear the way of obstacles and announce to everyone listening: "This is the way we are going." Constant vigilance is demanded so that our classrooms can never become airtight compartments sealed off from the real issues of the day. This fight for academic freedom is not something far off on the horizon. The fight is here and now. It demands courage from all of us: one teacher cannot carry the battle for everyone, the administration cannot stand alone, the Board cannot carry the issue without help . . . nor can it defend irresponsible action. Our effort must be unified; for the battle is worth winning.

10. Now and in the future, we will have to deal with the educationally disadvantaged, often minority group members. This is the most critical domestic problem facing our country today and could be the most critical in the history of the republic. The community college is the ideal institution to meet the needs of the educationally disadvantaged, because:

We have the open door. We have the master-teacher concept . . . remedial classes . . . reading laboratories. We have broad-scale counseling and guidance. We have diversified programs that include vocational-technical and college transfer and adult education. However, the old methods will not meet the test. New concepts of remedial programs are necessary. The "thyroidal" approach is imperative.

Our job is to unlock intelligence.

Many of these culturally disadvantaged fail--and quickly. Few succeed. College of San Mateo developed a "Readiness" Program which began as an experiment in the summer of 1966. In 1965 we had 85 black students, in 1967 we have over 400. We think that we and they are making progress. Time will tell. Here, again, we need constant experimentation, creativity, and innovation.

11. One of our most pressing challenges is to provide quality in quantity. Junior colleges began as small institutions, with small classes and personal relationships between teachers and students. The students knew their teachers and counselors . . . the students knew each other . . . and the teachers knew each other. Now, with bigness, the community college can become unwieldy, and students and teachers can lose their identities as individuals. The administration and faculty must meet this challenge. We must continue to provide small classes--balanced with larger classes. We must continue to stress the counselor-student relationship. Pre-college

registration and counseling should be mandatory. We must continue to emphasize student individuality. Teachers must invite all students to visit their offices, and their offices must be easy to find.

12. Our last, and possibly most serious problem is how to encourage experimentation, creativity, and innovation. We are alarmingly short of these qualities. Often, our attempt to emulate our university and college "big brothers" may be partly responsible for this situation. The traditional approaches to learning are not nearly enough. We need newer technology . . . to investigate programmed instruction. We can use TV, and we have UHF Channel 14 for our three campuses--although at San Mateo we never expect to be all television. Television must be innovated and must not become the technical projection of the traditional lecture. We need to study motivation.

The movement's impetus and enthusiasm may attract persons not really sympathetic with the community college philosophy. We must jettison them. To each teacher, I issue the challenge to be experimental, creative, and innovative. I call on you to attract others to the movement with the same qualities. When we contemplate the future, the question which naturally follows is: Where do we go from here?

You may have seen the answer Sir Charles Percival Snow gave to that. This eminent British physicist and novelist, participating in a published question-and-answer session with the editors of U.S. News and World Report, said, quote:

> "I think your college education is one of your great contributions--not only to yourselves, but to everyone else." Then why so much criticism abroad of American schools? he was asked. His reply was classic. He said: "You hear a lot of adverse comment from English people who have the liberating influence of knowing nothing whatever about it, never having been here." And, he added, that one of the things that impressed him most in America was that, "You have made a serious attempt to give higher education to an abnormally high proportion of the population--men and women. It's wasteful, but you've got to be prepared to have a certain amount of waste in higher education. Otherwise, you're going to miss a lot of good people."
>
> The editors asked him whether a nation could provide good education with mass education. "I believe it can," he said, "and I believe, in fact, you do. You've made the best of two quite different necessities. One is to educate a large number of people, and the other is to carry some of them a very long way." Then the famous Englishman made this thoughtful comment:
>
> "You've accomplished those necessities largely by making your last year in the best universities and your graduate education extremely exacting. Your first three years generally wouldn't be as exacting as an English undergraduate course. But we pay a very high price for that, which you don't pay. The price is that we've only educated very few. That is too heavy a price."

This is both a tribute and a challenge from Sir Charles.

The community college movement is gripping and dynamic. The potential is unlimited! It all depends on our ability to meet the challenge! We must meet it!

Saturday, November 18, 1967

GENERAL SESSION

Presiding . . . . John K. Cox
Vice Chairman, Illinois Junior College Board

Address - "Looking Ahead" . . . . Frank F. Fowle

Ladies and Gentlemen -

I cannot begin without saying that I have personally obtained great satisfaction and pleasure from my association with all of you and with your dramatically successful efforts in establishing new colleges in Illinois. All of you have performed with distinction. I am proud to know you and to do business with you. I have great respect for each and everyone of you.

As Adlai Stevenson once said when he addressed a distinguished audience, we each have our work cut out for us this morning -- my job is to speak -- your job is to listen. Let's hope we each finish our tasks at about the same time.

One further introductory remark - I am well aware that I speak as a layman to a sophisticated audience of educators. I speak, therefore, with a certain amount of trepidation, lest I be said later to have done nothing more than bring coals to Newcastle. Let me say also that I speak as an individual, and not, etc.

We are here at this meeting to talk about education -- about higher education -- about a relatively new form of higher education which we call "the junior" or "the community" or the "two-year" college. This is a form of post-high school education which is in part similar to and yet quite different from post-secondary education that has been available to earlier generations of young men and women in this country.

My topic this morning is "Looking Ahead". I find that when I try to look ahead, it sometimes helps me to look backward first.

I don't propose to dwell very long on the role that education has played in the history or development of the country, or of other countries in the world where education has been widely available to young people, and older people as well.

But think for a moment of the material and other progress of nations that have provided universal education at least through the high school, as compared to the progress of nations where education has been available only for the aristocracy. Think of the differences between America north of the Rio Grande and American south of the Rio Grande. Think of the differences between Japan of the mid-19th Century and Japan of the mid-20th Century. Think of the differences between Czarist Russia and Russia of the 1960's.

The plain fact of the matter is that education is probably the most significant factor in the development of any civilization.

If more need be said, consider the disparity of educational opportunities between whites and Negroes right here in our own United States. The results are obvious for all to see!

Education for all our citizens has become increasingly important. We have long provided universal education through the 12th grade, but education beyond the high school has become an essential level of preparation for all persons expected to play a constructive role in American Society. There are, of course, many reasons for this. Technological advances in virtually every field of endeavor require more education and training to enable individuals to obtain and hold positions in our economy, and to live happily and successfully with their fellow men. There is a great cultural drive towards higher levels of education. More young people are of college age. More and more persons of college age are going to college. The growing complexity of our society has greatly increased the demand for more education for larger and larger numbers of people.

It is plain for all to see that a high school education is no longer enough to equip the average citizen to fulfill the demands he is expected to meet.

Earlier generations of Americans have provided universal education through the 12th grade. I believe, as I know many others believe, that the citizens of this country are ready to go the next step. I believe that Americans are ready to provide two years of additional universal education -- two years of higher education for all citizens.

To those who would say we cannot afford this, I would say that a democratic society cannot exist -- cannot really exist -- without a well educated citizenry. Our greatest resource is people. We simply cannot afford not to equip them to meet the challenges of the second half of the 20th Century and the challenges of the 21st Century.

The emergence of the junior or community college has been the most noteworthy development in higher education in recent times. It has brought higher education to hundreds, perhaps millions of persons who, for the most part could never or would never have gone on to college.

It has democratized higher education in ways and to an extent that is beyond the wildest dreams of educators who lived a century ago!

It has sought to provide an open door to higher education, to all citizens who could profit thereby. There are many patterns of public junior colleges in the United States. The architects of our system, the Illinois Board of Higher Education and the Illinois Legislators, have selected a system that they thought would place Illinois in the forefront of the junior college movement.

I believe they have done an admirable job. The Illinois system has developed and flourished beyond anyone's expectations. Its future is bright!

Again, I compliment all of you for creating, with enthusiasm and ability and foresight, an already extensive system of comprehensive junior colleges that is attracting the attention of educators across the land!

Looking Ahead -- all of us can see a task that is enormous. There are some 82,000 students enrolled in public junior colleges in Illinois today. We are told that this figure will increase to 275,000, or more, by 1980. The task of planning and constructing new college campuses, the task of recruiting faculty and staff, the task of providing education of increasing quality for ever increasing numbers of students -- these tasks are staggering indeed! If they are to be accomplished, these will need be not only great commitment and effort, but the fullest cooperation among all concerned -- among local citizens, local boards, administrators, faculties, state boards, and last but by no means least, the State Legislature.

Looking Ahead -- there are a number of things I would hope to see --

I would hope to see a system of junior or community colleges covering the entire state, and making easily available to all who can profit from it two years of higher education of outstanding quality.

I would hope to see this two years of higher education provided tuition free for all residents of the State.

I know that the law now provides for tuition, and that many of our junior colleges are charging or plan to charge tuition. I am aware, too, that this subject is controversial. Those who urge the charging of tuition do so, I think, for a number of reasons. They urge the charging of tuition for the practical reason that it is a fiscal necessity. They urge it also for philosophical reasons -- public education ought to end at the completion of high school -- education is not truly valued unless he who receives it is required to pay something for it. Nevertheless, I believe that the ideal junior or community college should be tuition free.

Practically, American Society has always afforded and can still afford to provide for its citizens the level of education that is required for employment in the economy and for participation in civic responsibility. With respect to the philosophical arguments, it may be noted that public education in this country has been continuously extended as new conditions make more schooling both possible and desirable. There is no more inherent reason to set the terminal point as high school graduation than at eighth grade or junior college or the master's degree level. In the present stage of our economy, there are many compelling reasons for providing tuition free education, at least through the junior college years. The motivations argument for tuition charges may have some degree of validity, even though one of the effects of tuition charges is to exclude some able students from further education. Every year of school attendance is costly to the students, or his parents, in living expenses and loss of earnings, and tuition charges simply add to their total burden. Present social policy, I believe, should encourage the development of talents, rather than place barriers in its path. The nation can better afford the costs of free tuition than it can the loss sustained by underdeveloped human resources.

Looking Ahead -- I would also hope to see truly open door admission policies. I would hope that our junior college will follow a policy of admitting any high school graduate, or any person over 18 years of age, who seems to be capable of profiting from the programs of instruction that are offered. I would hope that our junior colleges will be wide open to students of all ages, of all social classes, and of all varieties of abilities.

I wonder how many of you read about Secretary of Defense McNamara's recent address to the National Association of Education Broadcasters in Denver. His subject was: Democracy and the Rehabilitation of Men. Among other things, he described the Armed Forces Project 100,000, a project to rehabilitate drop-outs and draft rejects. Of 1,800,000 young men reaching military service age each year, a third fail to qualify under draft standards. In some states, 80% of Negroes have been rejected.

Secretary McNamara told his audience:

"These men have a potential, but the slow and silent poison of the poverty virus has paralyzed it in many of them. They have grown up in an atmosphere of drift and discouragement -- in a ghetto of the human spirit." The Department of Defense has already undertaken to rehabilitate some 50,000 rejected draftees the first year, as part of a project to rehabilitate 100,000 each year.

Mr. McNamara reported that in the first year, 96% of these men successfully completed basic training, which is only 2% less than the normal fraduation rate.

These men have not been told that they are substandard. Only the Armed Forces know that they are on trial.

"It is absolutely imperative that they believe in themselves and their own potential", said McNamara. "They obviously cannot do that if we treat them with anything remotely resembling condescension."

The parallel between the admissions policies of the Armed Forces and the admission policies of our junior colleges may not be very exact, but it is suggestive.

I would hope that in a few short years, our junior colleges will be so open and will provide such a wide variety of programs and community services that, in a very real sense, their student bodies will comprise very nearly the entire communities which they serve.

Continuing to look ahead -- I would hope to see the strongest possible junior college counseling programs as keystones in each of our junior college operations. The open door won't mean much, if it is simply a revolving door or if it opens into a vestibule with many other doors that are not truly open.

Junior college students will come from all walks of life. Many will come from disadvantaged segments of the population. Some will have a lower level of educational background than others. Many will need remedial work before they tackle anything else at all. More will wish to go on to senior institutions than will ever actually do so. Many will wish to prepare for occupations for which they are not fitted. A great many will come to the junior college with nothing more than a vague idea that "education pays off", a level of motivation which may not sustain the student very effectively on a day-by-day or week-by-week basis, as he pursues a course of study.

The needs and problems of the junior college student are enough to turn the hair of any college counselor gray.

College counselors should be trained personnel, and there should be enough of them to do the job well! I believe that counselors should have graduate degrees in counseling and should be allowed to devote full time to counseling, without other assignments.

A strong counseling department would seem to be very nearly the hallmark of any modern, successful junior college program.

As I continue to look down the road ahead, I would hope to see some 40 or more junior colleges in Illinois, adhering to the best traditions of the junior college movement. I would hope to see them performing each of their multiple functions well, providing full financial and other support not only to preparing students for transfer to senior institutions, but to their terminal and developmental programs as well. I would hope to see in all of their programs, terminal as well as transfer, a strong emphasis on general education. In the occupations and technical areas, I would hope that our junior colleges do not become mere technical institutes, providing no more than well honed, efficient, productive cogs who will fit neatly into the economy. I think our comprehensive junior colleges should do more than this. I think they should provide a balanced, comprehensive introduction to the most important areas of man's knowledge. It is the 70-75% of junior college students terminating their education after one or two years of college, who are most in need of the humanizing effect of general education, and are the least likely to receive it.

With respect to occupational and technical programs, I would hope that the colleges will have worked out curricula which are needed to produce men and women to serve, first, the economic needs of their own communities and regions, and second, the economic needs of the state and the nation.

With regard to the transfer programs, I would expect to see such complete articulation between our junior colleges and our senior institutions that transfer students could transfer with ease from junior colleges to senior colleges anywhere in the state, and indeed to senior colleges anywhere in the country.

I would hope also to see adult education programs develop to the point where each junior college has become the recognized center for continuing education in its community.

One further word concerning program -- not everything is learned in the classroom. I would hope to see programs for a wide range of student activities, with students being encouraged to form their own organizations for any legitimate purposes, and with students being allowed and encouraged to participate in some way in the structure of the college's decision-making processes.

As I look ahead to the future, I would also expect to see junior colleges place great stress on excellent teaching. It is said that the chief function of the junior college instructor is his teaching. He is not expected to concentrate on research and publication in addition to teaching, as is his counterpart on the faculty of the university.

While I have never been a teacher, I have often thought to myself that the rewards of great teaching, of being able to inspire and motivate and assist class after class to master new subject matter, must be satisfying indeed! I would think that persons who know how to teach, and love the experience, would find great happiness in teaching in the junior college.

Teaching is the prime function of the junior college. Universities may become great through research, through publications, through opportunities for graduate study. But the junior college can attain its renown, and the esteem of its alumni, only through the effectiveness of its educational programs. Either it teaches excellently, or it fails.

At this point, I think I should say just a word about standards of achievement in junior colleges.

If junior colleges welcome all citizens who desire education; if they develop a variety of programs to meet their needs; if they organize guidance services to assist the student to find his way among a wealth of opportunity; and if they provide excellent teaching -- the student really has little excuse for inadequate achievement.

The doors to college will be open. Admission policies will be liberal. But the colleges do not promise to keep the students in college. The privilege of remaining in college should be earned by acceptable accomplishment.

I would not expect, and I am sure you do not expect, that junior colleges will give credit for sub-standard academic performance.

If an automotive mechanics student performs consistently in a superior fashion, he should get an "A". If he fails to accomplish the minimum requirements of the course, he should get an "F".

There is one other matter I should mention as I look ahead, and that is the all important problem of cost. The costs to taxpayers of building and operating 40 or more junior colleges in this state will obviously be astronomical.

This is a problem to which all of us must give serious attention.

Last spring, Maurice Mitchell conducted a seminar for members of the Illinois Junior College Board. Mr. Mitchell was then vice-chairman of the Board and President of Encyclopedia Britannica. He is now Chancellor of the University of Denver. Mr. Mitchell brought together for our benefit a number of persons from various parts of the country who gave us demonstrations of the latest techniques in such things as closed circuit television, video-tape recording, computer-aided-instruction, new kinds of micro-filming and the like.

Our eyes were opened wide indeed. (Here in my hand, on this one small card, is a negative containing pictures of no less than 3200 pages of ordinary printed material. With it comes a viewing device enabling you to find and read what you want with the greatest of ease. And, if you like what you see, you simply press a button and you have a Xerox of the material you're interested in.)

Much of the educational resources material needed for junior college work can easily be kept in a single, small location, and made available locally literally by throwing a switch or pressing a button.

As you know, the Board of Higher Education's Master Plan Phase II deals extensively with the subject of centralizing, stretching and extending instructional resources, and the sharing of these resources by institutions of higher learning, including junior colleges.

Some of you may know that President Johnson is now working on what he calls an electronic "Network of Knowledge" for the entire United States, and on a world university that will store and eventually transmit information by satellite over large areas of the world's surface.

"Think of the lives it could change," Mr. Johnson said. "The student in a small college could tape the research resources of a great university. The country doctor could get help from a distant laboratory or teaching hospital -- a famous teacher could reach into a far off classroom so that no child need be neglected."

"The time has come," he said, "to enlist the computer and the satellite, as well as television and radio, in the cause of education. A wild and visionary idea? Not at all!"

I won't dwell longer on this subject except to say that there are enormous implications here for dealing with the huge and escalating costs of higher education in the state, and for keeping them within the reasonable means of our citizens.

As I look ahead, let's say to 1980, when there may be 300,000 students in our junior colleges, and some 700,000 students in all of our institutions of higher learning, I think I can see the adoption of many new techniques and devices that today are still pretty much on the drawing boards.

I would hope that each of you would look ahead, too.

In closing, let me say that I look forward to a very bright future for junior colleges in Illinois. Again, I compliment all of you on the miracles you have already accomplished.

It has been a pleasure to be with you this morning. I thank you!

Admission to Curricula .Seminar Session

Chairman . . . . Mrs. Albert J. Simon
Board Member, Elgin Community College

Panel

Ernest F. Anderson Coordinator, University-Junior College Relations, University of Illinois	Herbert C. Kalk Dean of Faculty and Instruction Wilson Branch - Chicago City College
Carl B. Wiemann, Jr. District Director, American College Testing Program	J. B. Munson Dean of Students, Rock Valley College

Recorder . . . . Wesley E. Soderquist
Dean of Student Personnel Services, Bogan Branch - Chicago City College

ADMISSION TO CURRICULA

Ernest F. Anderson

Many of you may question the importance and value of this seminar for representatives of comprehensive junior colleges which usually pride themselves on operating an "open door" institution. Many citizens and junior college educators have interpreted the "open door" policy to mean that the colleges which advertise the "open doorness" of their institution allow students complete freedom in the selection of the curriculum they want to pursue. I believe that there is enough misunderstanding or honest difference of opinion on this issue that it is worthwhile that we devote some of our time at this junior college conference to consideration of the most effective way of distributing students among the various curricula offered by a comprehensive community college with an "open door" admissions policy.

Junior colleges have not historically considered the admissions function as being one of prime importance or one requiring a large allocation of specialized professional staff. There is some evidence that many junior colleges have tended to accept all who apply, utilize the limited counseling assistance available for advising, and then allow students free choice in the selection of a curriculum. Faculty and others have begun to raise questions about the effect of the "open door" policy implemented in such a way that there is little or no selection of students for courses or curricula which they enter. Questions have been raised concerning the classification of students on critical variables to assure that students admitted to a curriculum have a reasonable chance of success in the curriculum and that they will not interfere with the effectiveness of instruction of other students who are qualified to pursue the curriculum.

In studying this topic, the following questions seem to be central in arriving at a basis for a sound and effective admissions policy:

1. Who is going to be admitted to the college?
2. Should there be different admission requirements for the various curricula offered in the college?
3. How should an institution decide what criteria and standards should be adopted for admission to a curriculum?
4. What are the implications for curriculum development?

Admission to a junior college should be related to the purposes and functions of the college adopted by the Board of Control upon the recommendation of the president of the college. It is desirable that he have the advice of the faculty on this important matter. In Illinois, this admission policy must be within the statutes of the Junior College Law which reads as follows:

> "The Class I junior college districts shall admit all students qualified to complete any one of their programs including general education, transfer, occupational, technical, and terminal, as long as space for effective instruction is available. After entry, the college shall counsel and distribute the students among its programs according to their interests and abilities. Students allowed entry in college transfer programs must have ability and competence similar to that possessed by students admitted to state universities for similar programs. Entry level competence to such college transfer programs may be achieved through successful completion of other preparatory courses offered by the college. If space is not available for all students applying, the Class I junior college will accept those best qualified, using rank in class and ability and achievement tests as guides, and shall give preference to students residing in the district."

Who should be admitted to the comprehensive junior college? If a college accepts the philosophy implied from the entrance requirements just referred to, it will endeavor to develop a program, curriculum, or other instructional unit for all students who apply for admission. This means that you will admit to the college all of those who want, need, and can profit from any one program offered by the college. If students apply who are not qualified to complete any one of the programs you are offering, the institution is obligated to (1) develop courses or curricula which would help the student overcome his deficiencies, (2) establish other instructional units which the student is qualified to complete, or (3) send him to a neighboring institution which has a program of the type the student needs. We have too long allowed students to enter courses and curricula which it was almost certain that the students could not complete successfully.

Should there be different admission requirements for the various curricula offered? A multi-purpose educational institution must have some method of distributing its students among the various programs if it is going to attain maximum effectiveness. The junior college is obligated to accept students with a wide range of intellectual and personal characteristics, but it is also under a legal mandate to counsel and distribute the students among its programs according to their interests and abilities.

The problem of implementing this statement is that we cannot measure with complete accuracy the ability of students and, further, we do not have definite knowledge of the abilities and interests which are required to successfully complete a program. However, we do know more than is presently being used in many institutions. We have tests which have been used over the years in academic areas and a few skill areas which have been validated as being helpful in the selection of persons who can be successful in the completion of a curriculum.

In an institution which has a curriculum leading toward the bachelor's degree in engineering and a six-months program for service station attendants or small motor repair, it seems clearly logical and necessary to know and use different entrance requirements for these two programs, as well as others.

How should an institution decide what criteria and what standards it should adopt for admission to a curriculum? This is the question which makes the adoption and use of differential admission requirements difficult to implement. We are not yet advanced enough in the areas of testing and measurement that we can predict who can and who cannot be successful in a curriculum. Neither do we know what student characteristics are highly associated with success as a practical nurse, a lawyer, or a social worker.

In order to find out what criteria are related to success and what standard is necessary for success in the various curricula, junior colleges should admit on the basis of their present knowledge for the first year or two of the operation of a curriculum. Then there should be a study of all students admitted to see what effect, if any, high school rank-in-class, ACT scores, age, sex, special skills, attitude scales, interest inventories, and other objective measures had on the success or failure of students. Based on these data, the institutions can begin to build expectancy tables for every curriculum which would indicate the probability of success for a student with given characteristics. In this way, counselors and advisors can more accurately assist students in making intelligent vocational and curriculum choices.

An institution which follows this pattern can, if it so desires, develop cut-off points or a range of scores on a particular variable for which it may want to select students for a particular curriculum. The use of a range of scores on one or more variables requires the use of discriminant function analysis which provides for the selection of those students who have scores on a given variable which are similar to the scores of successful graduates of the program.

In developing the criteria to use and the standards to apply for differential admission to curricula, it will be necessary to involve several groups. The faculty should participate in the establishment and change of any admission policy. They determine the specific content of the curriculum and evaluate the student's progress. Unless the faculty understands the purposes of the admission criteria and standards and believe them to be valid predictors of success in their courses, they are not likely to be very helpful in supplying data for improvement of the system or supportive of admission decisions based on standards adopted.

Admission criteria and standards should be communicated to high school counselors and citizen advisory groups so that they can understand the purpose of them and what is likely to be expected for curricula in which they may want to enter. Unless this is done, there may be resentment if they are excluded from a curriculum. Four-year colleges and universities should be informed if there is a major change in admission policy for students enrolled in baccalaureate oriented curricula. Employers should be involved in suggesting criteria which are important to success in a given occupation.

What does this mean for curriculum development? It means that there must be a broad range of curricula for students with varying abilities and interests. It means a remedial program for those who want to enter a transfer program but are not presently qualified. It may mean a pre-technical program for students who do not have necessary skills to enter a "high level" technology program. It may dictate a cooperative arrangement with other colleges to offer specialized programs for which there are not enough students to economically provide a curriculum.

Summary

The comprehensive junior college should admit all students who want, need, and can be successful in any of the programs offered. The institution is obligated to counsel and distribute students into the various curricula based on the interests and abilities of the students admitted. This means differential admission requirements for the various curricula based upon criteria related to the success of students in that curriculum. This may involve a period of undifferentiated admission in newly established curricula, in order to find out what criteria and standards should be utilized in selecting students for the curriculum.

This assures a broad range of curricular offerings, with reasonable opportunity for success in at least one curriculum for students with a wide range of abilities and interests. It also implies that we know the requirements necessary for success in a curriculum, have adequate data on the characteristics of each student, and an adequate counseling staff to assist students in making the most effective curricular choice for the individual and the college.

THE AMERICAN COLLEGE TESTING PROGRAM

Carl B. Wiemann, Jr.

The opportunity to visit with you for a few minutes about the American College Testing Program is indeed appreciated.

The American College Testing Program, or ACT as it is often called, is widely used in Illinois by high schools and colleges as a guidance tool for educational planning. Not only are the results used in the admission process--to colleges and to curricula--but also to assist the student in better self-understanding through counseling and advising.

At the present time, all the public four year colleges and universities in Illinois are participating in the ACT Program. With one exception, all Illinois public junior colleges are using the ACT Program. In addition, thirty-two of the state's private colleges and universities are participating in the Program. On the national scene, more than 1,500 institutions in fifty states and the District of Columbia participate in the Program. This past academic year, 865,000 college-bound students wrote the ACT tests.

I should like to divide my time into two main parts: (1) a brief explanation of the ACT Program; and (2) to highlight, with transparencies, a research report which is similar to reports sent to ACT participating colleges.

The American College Testing Program (ACT) is an independent, nonprofit corporation chartered under the laws of the state of Iowa. It was founded in 1959. The Program regularly collects, processes, analyzes, and reports information for use in educational planning by college-bound students, their high schools, and colleges. Its principal function is to transmit timely information that is particularly relevant to educational planning during the period of transition from high school to college.

ACT provides those services which are educationally important, which are of direct value to the students and schools, and which capitalize on the advantages of electronic data-processing equipment. The main purposes of these services are to --

1. provide estimates of a student's academic and nonacademic potentials that will be useful in the admissions process,
2. provide dependable and comparable information for precollege counseling in high schools and for on-campus education guidance,
3. provide information useful in granting scholarships, loans, and other kinds of financial assistance,
4. help students present themselves as persons with special patterns of educational potentials and needs,
5. help colleges place freshmen in appropriate class sections in introductory courses in English, mathematics, social studies, and natural sciences,
6. help colleges examine and improve their educational programs.

Most student information provided by ACT to its participating institutions is collected through a national Student Assessment Program. This program uses four tests of educational development and academic potential, a set of self-reported high school grades, and a student information blank. The tests and grades afford information about the student's potential for academic achievement in various areas. The information blank, or Student Profile Section, furnishes information about his background, special needs, and potential for achievement in non-academic areas. Each of these devices is described briefly below.

The major portion of the ACT Battery consist of four tests--in English, mathematics, social studies, and natural sciences. These tests were developed to measure as directly as possible the abilities the student will have to apply in his college course work. In other words, the tests are designed to measure the student's ability to perform the kinds of intellectual tasks typically performed by college students. Most of the test items are concerned with what the student can do with what he has learned; they are not concerned primarily with specific and detailed subject matter.

Perhaps the most reliable research finding in education is that high school grades are predictive of college grades; further, that academic aptitude tests and high school grades combined are a better predictor of college grades than either alone. This knowledge led ACT to initiate regular collection of self-reported high school grades.

In the testing session the student is asked to report his most recent grade prior to his senior year in high school in each of four subject areas--English, mathematics, social studies, and natural sciences. These self-reports are considered estimates of his high school academic achievement, for such as persistence and study habits.

The Student Profile Section, which takes about 20 minutes to complete, is a biographical inventory containing the kind of information often requested in college application forms. However, it collects and reports this information in a more systematic fashion. Specifically, it gives the student the opportunity to tell prospective colleges about his aspirations, goals, background, anticipated personal needs (such as housing, financial aid, and part-time employment,) and nonclassroom achievements.

The Student Profile Section aids a student in informing colleges of his abilities. Students whose nonclassroom accomplishments are outstanding, but whose high school grades and test scores are only average, now have a way to call attention to these other important potentials.

Now I should like to distribute an explanation of the actual score reports that colleges receive from ACT.

A brief explanation was given of the four lines of information on the college score report form. Local college data on line four was stressed. Information estimating success in various curricula or subgroups is provided on line four if the institution participates in the free Standard Research Service. The subgroup and particular course data are dependent upon the research design decided by the individual college.

Transparencies with an overhead projector were shown to highlight some of the ACT research services.

ADMISSION TO CURRICULA

Herbert C. Kalk

On page 146 of their comprehensive study, published in 1966, Compensatory Education for the Disadvantaged, Programs and Practices: Preschool through College, Gordon and Wilkerson state:

> It appears that very few institutions are developing new compensatory curricular programs on the college level; most of those reported to this inquiry consist of the usual remedial courses and study-skills workshops. Notable, even so, are two comprehensive remedial curriculums developed during the past six or eight years.
>
> In 1957, Morgan State College (Maryland) began to require entering freshmen "who score in the lower half of both the English Placement Examination and the Psychological Examination to take the Basic Skills [curriculum].......a one-year, noncredit program.
>
> In 1959, the Woodrow Wilson Branch of the Chicago City Junior College began to place all entering full-time freshmen who scored in the lowest tenth on a battery of intelligence, English, and reading tests in a special one year, noncredit remedial program, known as the Basic Curriculum.

I cite this reference not to boast about Wilson's foresightedness in being the very first junior college in the United States (and I suppose that means the world, for until the Russians discover that they invented the junior college, what other country can lay claim to it?), but to cite Wilson's unique contribution to our topic for today, "Admissions to Curricula."

For it is separating the transfer-"able" student from the student whose chances for transfer to a senior college are very slim that Wilson is most involved in the problem of admissions to curricula.

It is the transfer-oriented and the remedial groupings that are the two major classifications into which the student body is divided. Within the transfer program, there are varied and highly specific prerequisites for entering particular courses, like chemistry, physics, mathematics, foreign language, accounting, etc. These prerequisites include special aptitude tests, ACT scores, specific high school credits, and previous college sequential courses. The prerequisites have been developed through the varied experiences of our more than thirty years of existence as a junior college and seem to be successful. At least they have stood the test of time. They have been modified over the years when a department felt that new prerequisites or new examinations were needed. The list of prerequisites for the transfer courses is long and detailed, and I feel it would not be profitable for the purposes of this meeting to spell them out at this time.

What I feel is more profitable is to discuss the opposite side of the coin of admitting students to curricula, and that is developing the curricula to admit students to. Although establishing precise qualifications for admissions is important for transfer curricula, it does not seem to me that this, as the "hippies" express it, is the particular "hang-up" of the junior college. For, granting that there will be differences among colleges in standards of admission to transfer curricula, we know, on the whole, the techniques for this kind of admission, and if we don't, we can put our best research minds to work finding out. It seems to me that we serve the transfer student quite well in this respect.

The student we have been neglecting all these year is the non-transfer student, and the old saw that God must love the poor because he made so many of them is certainly applicable here. I don't know how it is at your particular colleges, but at Wilson at least 80% of our students do not transfer to a senior college. And certainly we have not spent 80% of our time, energy, thought, and money on this important segment of our college population.

These are the students who come to the college with great expectations--quite often, we know, unrealistic, but expectations neverthless--only to meet frustration after frustration in curricula and courses inappropriate to their abilities. And so they tune-out, drop-out, and flunk-out in great numbers. The trickle of departing students starts in the very first week of classes---even before that during registration--builds to a great crest by the end of the semester, and ends in a mighty flood by the end of the year. Unfortunately, too often the individual faculty member in his classroom and the administrator closeted in his office see only the trickle; the flood may be seen in end-of-term statistics, but these statistics are scarcely dramatic enough for a call to action. What we need is one of those double-page spreads that Life Magazine delights in when it gathers together all the people required to run Disneyland or the Waldorf-Astoria, herds them into a meadow or a parking lot, and then takes their picture with a wide-angle lens. Unfortunately, our parking lot at Wilson is barely large enough to hold at one time all the students who will be gone at the end of one year. At Wilson, which enrolled close to 5,000 students this fall, we will have lost 500 students by February. These are 500 students who are most likely lost to themselves and lost to society. Russell Lynes in his excellent article "How Good are the Junior Colleges" in the November, 1966, Harpers, quotes Edmund Gleazer, Jr., executive director of the American Association of Junior Colleges, who provides this criterion for judging the junior college:

> "We must evaluate performance in terms of objectives, reasons for being...Does it get people to their destination---isn't that the test?"

It that is the test, then I'm afraid that many of our junior colleges must either be placed on probation or dropped for poor scholarship because of their failure to grab these drop-outs, to hold them, and to get them to their destination.

Among my many part-time jobs during my undergraduate days was that of a salesman in a women's shoe store, where to allow a customer to walk out of the store without buying a pair of shoes was the unpardonable sin, enough of which sins could cause the salesman to be walking out of the store himself, looking for another job. Shoe stores in Chicago, and I am sure elsewhere, developed elaborate systems, which probably still exist today, to handle what are known in the trade as "T.O.'s" or "turnovers." In this "college of hard knocks" (the shoe store), if the original faculty member (salesman) could not deliver the goods, he was required to turn the "student" (customer) over to a "master teacher" (experienced salesman, or "old shoe dog", as he was known), and if he wasn't successful, the "head counselor" (manager) was called in, and sometimes the student ended up being waited on by the "president" himself. No customer left that store without getting the full treatment. And you would be surprised at how many sales were rescued in this way. What I am suggesting is that we establish a system of "T.O.'s" for the junior college so that we exhaust every approach before we allow the student to leave the college untrained, and uneducated, wandering aimlessly toward an ill-defined destination.

At Wilson during the last several years, we have been making an all-out effort to change this picture by attempting to reach the great numbers we had failed to serve in the past. If there has been a dominant theme that has characterized Wilson in recent years, it has been in the pioneering of curricula to meet the needs of a complex and ever-changing urban society.

As I mentioned in my opening remarks, Wilson was the first junior college in the nation to offer a comprehensive remedial program. I suppose that the reason we developed our program earlier than other junior colleges is that our location in a populous, lower-income neighborhood of Chicago forced us to face the problem at a time when the problem had not reached schools "more favorably located." The fact that Wilson possessed some disadvantages that other colleges did not propelled us to the forefront of a movement. I must admit in all fairness to ourselves, however, that we did not bury our heads in the sand, but looked the problem square in the face, or you might say, "eyeball to eyeball."

Looking at student academic performance, we saw two critical problems: 1) lower level students under the existing "sink or swim" policy were sinking far more often than they were swimming, and so we were obviously not performing any real service to them by admitting them to college; and 2) the transfer program was being slowed up by being forced to carry along students at the lower end of the intellectual spectrum in the same classes with strong baccalaureate-bound students.

The only logical solution seemed to be to establish a comprehensive remedial program (we had already established a piecemeal remedial program scattered throughout the curriculum) which would have a double function: 1) to salvage for the transfer program those students with undiscovered potential (and I must interpose at this time, our most spectacular success: James Banks, a young man recently off a sharecrop farm in Arkansas, who tested at the 4th percentile, was promoted out of our Basic Program after one semester into the regular college program, performed spectacularly there, went on to greater honors, graduating from Chicago Teachers College as valedictorian, and in March of this year obtained his Masters Degree at Michigan State with a straight "A" graduate record. Banks has had numerous articles published in educational journals, has had a textbook accepted for publication, and is now at work under a fellowship at Michigan State for his PhD. Successes like James Banks', admittedly rare, make it all seem worthwhile.)

Meanwhile back to our story. In addition to the salvage function, the remedial program, by grouping the slower learners together, served the function of helping to strengthen the transfer program. The Basic Program has undergone many changes that we don't have time to go into at present except to say that despite the occasional James Bankses, who are still being served, our emphasis has shifted from a primarily salvage orientation to the more realistic goals of making these students more well-rounded human beings and better citizens, for sad to say, we have still not found any magic formula for developing the majority of Basic students into successful transfer students. But I want to reassure you that we haven't given up trying.

From 1959, when the Basic Program was launched, until 1964, we did little pioneering at Wilson. During the four years from 1959 to 1963 we were having incredible space problems in our shared facilities with Chicago Teachers College, and somehow Teachers College got the upper hand and kept forcing us to retreat finally sending two-thirds of our operation into the abandoned and skimpily remodeled Rock Island Railroad Building. And although the folk song says that the "Rock Island Line is a mighty fine line," I'm sure that the anonymous composer did not mean to include the Rock Island office building.

But I must admit that the Rock Island building did provide us with some additional space, such as it is, and in 1964, we launched the first of our two-year occupational programs to serve the needs of those students who were not being served by the transfer program. And we have been going like sixty ever since. Within three years, we have started twelve occupational curricula, six of them--to my knowledge--the first of their kind in the state of Illinois, three of them the first of their kind among the eight campuses of the Chicago City College, and three of them that had been offered in somewhat different form at other Chicago campuses.

The six curricula that were the first of their kind in Illinois are--and I stand to be corrected if I'm wrong:

1. Pre-school teacher aide--1964
2. Residential child care aide--1965
3. Ornamental Horticulture--1965
4. Social Service Aide--1966
5. Elementary School Teacher Aide--1966
6. Transporation--1966

The three offered for the first time in Chicago are:

1. Air-conditioning--1966
2. Automotive technology--1967
3. Library technology--1967

The remaining three occupational curricula started within the last three years are: Recreation Aide, Mid-Management Development (formerly Retail Cooperative), and Commercial Art.

At present there is no prerequisite other than interest on the part of the student for entering a particular occupational curriculum. We are planning a vocational testing program similar to the excellent one in operation at Los Angeles Trade and Technical College, where a fairly large testing staff maintains a broad testing program on a daily basis throughout the year. A battery of aptitude and interest tests that varies according to occupational curricula is given to each applicant, and his admission to an occupational area is based on his performance on a particular battery.

With the establishment of the remedial program and twelve new occupational curricula, Wilson has made a first step toward the development of a comprehensive junior college. However, much more needs to be done if we are going to be truly comprehensive.

First, it is obvious that many more occupational curricula need to be established.

Second, the Basic Program needs further experimentation to discover more effective methods of remediation.

Third, there is a middle group of students, roughly identified as those students in our English 100 classes, who are now being neglected. These are students who fall between the transfer group and the remedial. Their success in regular college work, although greater than that of the Basic students, is still rather negligible. Programs need to be developed on their level.

Fourth, there is a need for a greatly expanded counseling service to channel students into the proper curricula. Especially important is guiding those students -- remedial, English 100, or transfer -- who fail to make the grade in the academic program into one of the many occupational programs.

Fifth, auxiliary to the counseling service, we need a testing service for both academic and occupational curricula.

Sixth, the establishment of a program of continuing education for lifetime improvement and upgrading of adults is needed.

Under this program must be developed a series of short and long courses or certificate programs, which may vary in length from a few days to a year.

Before I finish, I wish to sound a note of caution. Because so much effort is needed to launch new occupational programs and because so much research and experimentation are needed to discover successful techniques for teaching the culturally disadvantaged, a disproportionate amount of time may be devoted to these aspects of the college program, sometimes to the neglect of the transfer program. As a result, faculty, who for the most part are transfer-oriented, often are unsympathetic with, if not downright hostile to, these programs. I know that those of us at Wilson who share a great deal of the responsibility for bringing these programs into being have usually been so busy with these programs (12 new occupational curricula in 3 years without special staff, with no extra clerical help, no foundation or government grants, no public relations person, etc.) that we have often failed in communications with the faculty. However, we strongly feel that at no time should transfer programs be sacrificed either in size or quality to the occupational and remedial programs, which programs must be established in addition to, not in place of, the transfer curriculum. In fact, successful transfer and successful occupational and remedial programs will enable the transfer program to maintain its high level of transferability by placing students in those areas where they can best succeed. If money is not available for a comprehensive program, it is incumbent upon administrators and boards to convince the legislators and the taxpayers of the need for sufficient funds to develop such programs. For, the junior college -- especially the one in an urban setting -- will stand or fall on its ability to serve all the people, and it can do this by offering a wide variety of curricula: transfer, occupational, remedial, and continuing education.

To return to Mr. Gleazer and his penetrating question: "Does it get people to their destination -- isn't that the test?" Mr. Lynes replies,

> I doubt if there are very many junior colleges that would welcome having this test rigidly applied to them... at least not yet. Too small a percentage of those who climb aboard the new vehicle actually reach their destination; too many have no clear notion of what their destination is, and too many others fall by the wayside.

Mr. Lynes feels that the junior college is still in the Model T stage of its development as it tries to carry its passengers to their destination. I feel that at Wilson we have traded in our Model T for a newer model. It may only be a Model A, but it's running pretty well, and we're saving up for a Mustang.

SELECTION INTO VOCATIONAL-TECHNICAL CURRICULA

J. B. Munson

After glancing at the panel program, I decided to direct my remarks today to selection into vocational technical curricula believing that other facets of selection would probably be adequately covered by the preceding panel members.

Thirty years ago when I first became Director of Guidance and Research in the Lansing, Michigan Public Schools, I knew most of the answers. I could give an IQ test, achievement test, interest test or aptitude test and knew that my cut-off points were adequate predictors of success in the new vocational-technical high school we were setting up.

Now, today, I am full of misgivings and questions, and I am not nearly so self-assured. Prediction of success is not that simple. But let me digress for a moment. The separate but equal approach previously applied to vocational and technical education is, in my judgment, bad theory and bad practice. Setting vocational and technical education up in separate schools has tended to identify it as a second class kind of education. If it isn't respectable enough to be contained in the academic high school or as part of a total college or university program, how can a parent advocate it for his child? The recent development of the comprehensive community college program with its sub-baccalaureate occupational education is the result of pressing problems of unemployment in certain areas and the problems of shortages of vocationally trained technicians everywhere. I think these are wonderful programs. These pressures are pushing us into educational programs and decisions which only vigorous imaginative approaches can determine. High on the list of these problems is the prediction of success in the vocational fields and the selection and allocation of students into technical curricula in the community college.

Selection into a vocational curriculum requires the active involvement of all persons whose responsibility it is to make the final selection. Advisory groups and ad hoc committees should study the problem of selection into each area.

The focus on selection will be sharper and satisfaction with the system greater if certain basic rules are followed:

First of all, an instructor or a department should state quite specifically the goals of the selection process. Clarity of objectives is indispensable if results are to be satisfactory.

Measurement and selection instruments and procedures must be carefully planned and standardized. Subjective judgments will still have to be made. Arbitrary cut-off points probably will give way to flexible standards from semester to semester because of shifting demands.

The major purpose of vocational-technical programs in a community college is to meet the needs of a community or a constituency. I think we would find that community college students are less mobile than four-year colleges or universities. Our students in the majority will stay in our communities and become parents, citizens, technicians, businessmen, board members, public officials--and tax payers! Actually our vo-tec people are not adequately described as two year people, either. One-half of them will probably attend one year or less. Less than one-fourth will go on to attend college for more than two years. Selection into courses and curricula for these people presents a complex local problem.

The program of selection and admission to curricula in an institution depends, I believe, upon the interests, prejudices and experiences of the primary individual responsible for the selection unless the group approach mentioned above is employed.

Subjective judgments will have to be used, particularly in such areas as nursing, or dental assisting where personality and other immeasurable qualities play such important roles. But the crystal ball is not a very acceptable basis for making predictions of success even when my crystal ball might be called something respectable like thirty years of experience, or insight or even a special skill!

As in selection to curricula in other areas, previous academic record is still the best predictor of success in vocational-technical courses, particularly if the person is a recent graduate or transferee. The longer the time lag between previous education or training the less correlation there will be. I am not sure that such success in class work is, necessarily, a predictor of success in the world of work. This is an area in which a lot of research needs to be done, particularly as regards community college job placements in business and industry.

So our major reliance for placement and curricula allocation probably ought to be on tests, on interest, aptitude, and achievement testing, and I submit to you that there is really very little reliable material available that is standardized or practical for a community college program. Do the tests measure what they purport to measure and is what they measure relevant? Are they accurate predictors of success for vo-tec courses and for success in later employment?

Most standardized ability tests are not perfect predictors of subsequent performance. Recent studies show little or no correlation between test scores and subsequent occupational success. There is a serious question about the usefulness of available tests and whether we ought to place any reliance on them. It is reasonable to assume that a minimum level of ability and intelligence is required for most occupations, but at or above this minimum we have no proof that the test measures one person's ability to succeed more than another's. In fact, it may be possible to have too much ability- (and too much intelligence) for an occupation which leads to boredom rather than to success. Perhaps we should think of optimal score limits rather than maximal (minimal and maximal) scores in our selection. I believe very little research has been done in this area.

Interest tests are not very trustworthy either. Most studies that we have available show a lack of congruence between measured interests and aptitudes and abilities. Family pressures influence interests tests, and even aptitude, test scores. So do many undefined needs of the individual that somehow conflict with the results. Emotional disturbances distort scores. Lack of experiences hamstrings a person's understanding of and the utilization of latent abilities. Selection or allocation to courses or curricula on the basis of interest tests becomes a compromise of choices.

Achievement, particularly in the case of young men and boys, often depends upon the teacher. One who is stimulating and effective gets a lot of achievement out of a given boy. One who is dry, dull and ineffective gets little. So an achievement test in a given area may not be a direct measure of anything.

In fact, it might be debated, probably, that no test is a direct measure of anything. It may only be a measure of an individual's responses to a set of stimuli today and the test given under different circumstances and at a different time might give different results.

Motivation, creativity and social skills remain largely a mystery to us as predictors of success. Too much reliance on the tests may cause us to overlook the highly creative or creative person. It has been suggested, that at least 75% of job failures are simply failures to get along with people.

I suppose I have painted a dismal picture, (about the futility of selection programs) but I believe college administrators, and even the general public, are expecting too much of guidance and student personnel people in community colleges. They are expecting us to work miracles in student selection of curricula and in allocations of students into specific courses. I do not want to paint a hopeless picture, however.

We have to admit students to electronics, data processing and/or nursing curricula on some standard basis. We have to continue to experiment with the limited tools that we have and keep careful records of test scores and study their correlations with successful experience.

With the awakening of interest in predictive testing on a community college level (at a much more sophisticated level than before) we face some exciting developments as a number of schools and researchers attack the problem of selection into curricula. With the development of the many new curricula in the developing junior colleges, and with the cooperative research that will go on in the next five years new instruments will be developed that will help us to do a much better job. Actually, selection is a continuing process. Selection into a technical area is probably never completely fair nor absolutely satisfactory, but decisions made must be reasonably interpretable to the students, parents and instructors involved. (Our selection processes must be continually up-graded with new processes, new data and constant evaluation).

If the goals of selection have been carefully conceived, if adequate records have been kept, if professional judgments are made where necessary, and if comprehensible evaluation is continuously conducted, the selection process should result in improved educational opportunities for the qualified individual students.

Articulation of the Transfer Student . . . . .Seminar Session

Chairman . . . . Charles J. Carlsen
Dean of Students, Black Hawk College

Panel

R. E. Trobaugh Administrative Dean, Illinois Valley Community College	William K. Ogilvie Director, Community College Servies, Northern Illinois University

G. Robert Darnes

Recorder . . . . Stanley R. Groh
Dean of Student Services, Waubonsee Community College

THE JUNIOR COLLEGE AND ARTICULATION

R. E. Trobaugh

The junior college has a decided responsibility to provide ease of transfer into the four-year college or university for those of its students who desire to continue their education beyond the junior college years. This responsibility is not likely to be lessened; rather, it is sure to be intensified since master planning for higher education in Illinois calls for ever-increasing numbers of students who seek the baccalaureate degree to take the first two years of their work in the junior college.

We may look upon our responsibility as a hydra-headed monster which continues to plague us with new demands, or we may accept it as one of our unique opportunities to assist college students in the realization of their educational goals.

No one could find fault with the junior college for regarding with some chagrin its involvement in the smooth transition of students from the junior college to the four-year institution. The student body with which we are dealing is an interesting but complex one. For example, in September of this year Illinois Valley had a total enrollment of 1753--1065 in the day program, and 688 in the evening. These students, for the most part, came from the eighteen high schools in our college district, but over three hundred and fifty came from high schools not located in the district. The majority of these students were graduated from high school in 1966 and 1967, but others were scattered through years as far back as 1922. Sixty-two received high school equivalency certificates by way of the G.E.D. tests. Sixty-five percent held part-time jobs in order to help finance their education; ten percent had attended another college before enrolling at Illinois Valley; sixty-four percent of the day students enrolled in the transfer program, twenty-three per cent of the evening students did likewise. Of these, the majority plan to transfer to the six state universities located in downstate Illinois, but 125 plan to enroll in a multitude of additional public and private colleges. Altogether, their plans call for their continued study in twenty-one different curricula.

These facts point up the great need for us at Illinois Valley, as in all junior colleges, I believe, to be involved in articulation. To none of us is the need for articulation new. The need for a close working relationship between the two and the four-year college has been present ever since the first junior college appeared in Illinois. However, in times past, articulation was something that each junior college probably tried to manage for itself. In order to maintain a harmonious relationship with four-year colleges to which our students transferred, we made more or less regular trips to these campuses from year to year to consult with admissions officers and department heads to determine the transferability of new offerings and to try to correlate our offerings with those of the four-year college. If, upon transfer, a student experienced some difficulty in receiving credit for a particular course, contact with the key individual on the student's new campus was quite likely to eliminate the difficulty. In order to avoid similar difficulty at a later date, junior college officials made whatever change was necessary in course offering or course content to give the course suitable transferability. Many of us took pride in the fact that our students had established sufficient reputation with the receiving institution that there was little question that a student who was admitted in his junior year would not perform in a manner comparable to that of the native student. In like manner, we tried to establish working relationships with scholarship and loan officers so that when a student needed financial assistance, our recommendation on his behalf usually produced the desired results. As a result of these contacts, many warm friendships were formed that have been cherished for years and many students benefited from these efforts, but today rather than individual effort on the part of junior colleges to make smooth transfer possible, there is a mutual effort by both two and four-year colleges and universities, enlisting large segments of their faculties, to establish procedures for easy transition from one campus to another. There is still much work to be done; every year we recognize the need for an increased effort and an enlarged program to meet the varied needs of our students who plan to transfer. To serve our students as effectively as possible, Illinois Valley is making use of several avenues which we hope will lead them to a smooth transition from our institution to the institution of transfer.

1. WE ARE DEVELOPING CLOSER RELATIONSHIPS WITH THE HIGH SCHOOLS IN OUR DISTRICT. In 1966 when we became a Class I junior college and our district was enlarged to include eighteen high schools, we began making plans for an articulation conference of our own, to which all high schools in our district would be invited. Two conferences were held last year on our campus--the first in the fall for counselors and principals, the second in the spring for counselors and departmental chairmen. In addition to presenting the customary information on admissions, fees, curricula available, etc., discussions were held to acquaint the high school representatives with the role played by the junior college in helping the student make a smooth transition from high school to the senior college. We readily admit that we work hard at encouraging high school students to attend the junior college before transferring as juniors to the four-year college of their choice. We know that we offer quality instruction, a broad program of student services and activities, and that there is readily available at all times a counseling staff that provides group and individual guidance for the student body. Since the college belongs to the people of the community, we believe in encouraging them to make full use of its facilities.

In addition to our articulation conference, we continue to participate in career programs sponsored by the high schools and accept all special invitations extended to us to discuss college plans with their students.

2. WE ARE ATTEMPTING TO PROVIDE A VARIETY OF SOURCE MATERIAL FOR JUNIOR COLLEGE STUDENTS. These include an orientation course for all new students; easy access to college catalogs, brochures, and to our counseling staff; invitiation to admissions counselors from four-year colleges to speak to students prior to transfer; invitation to former students to discuss their experiences after transfer with students who are still in junior college. (We have been fortunate to have students who return to the campus at breaks in their college terms, and they provide us with a wealth of feed-back as to the lack of or the presence of any difficulties which they may have experienced after leaving us).

3. WE ENCOURAGE ACTIVE FACULTY PARTICIPATION IN CONFERENCES CALLED BY FOUR-YEAR COLLEGES AND UNIVERSITIES. Through these formal and informal meetings, faculty members of both institutions gain greater respect for each other, become better acquainted with course content, exchange ideas on teaching techniques, all of which ultimately bring about a smoother transfer for the student. We believe that every contact which the junior college staff member makes with his counterpart on the four-year campus can add to the total articulation program between the two colleges. Specifically, such contacts will lead to the understanding that junior college teachers are highly qualified and capable instructors. Faculties of both institutions will recognize the role of each in providing a four-year curriculum.

4. WE PARTICIPATE IN PLANNING AND RESEARCH. Like all junior colleges, we welcome the opportunity to have members of our staff serve on planning and research committees that are engaged in conferences and studies dealing with improved articulation practices. As a result of those which have been undertaken in the past and those now being conducted by the four-year colleges, universities, the State Articulation Committee, and other agencies interested in the transfer student, valuable contributions toward improvement in articulation are made. In like manner, the junior college can profit greatly from its own studies on student characteristics, success of transfer

students at individual colleges, and other areas which will make for a better understanding of students' needs.

We are all heartened by the increased emphasis that has been placed on articulation during the last few years. Much has already been gained in providing for smooth and effective transfer from one institution to another. Continued study and effort on the part of all of us will make for increased improvement and will work to the advantage of the transfer student.

THE UNIVERSITY FUNCTION IN COMMUNITY COLLEGE - UNIVERSITY ARTICULATION

William K. Ogilvie

As I understand it, my responsibility on this panel is to outline my perception of what the various universities of the State of Illinois are doing to improve the transition of community college students as they transfer to four-year institutions. I am not going to review the findings of Knoell, Medsker, and Nelson in terms of implications for Illinois community college - university articulation, mainly because I am sure all of you are familiar with them.

As admissions officers from any four-year institution or any of the old-guard community college administrators will tell you, the community college transfer student and his problems have been around for quite a while. And, attempts by some university officials to ease these problems date back more than a decade. However, one must admit that it took the Illinois Master Plan, the threat of rapidly increasing numbers of community college transfer students, and the work of the Illinois Council on Articulation to motivate increased university action in the area of articulation.

The state-wide articulation meetings frequently held during the past two years have accomplished their missionary job, and Illinois four-year institutions have progressed from holding mass conferences involving student personnel services staff members, school administrators, and transfer students, to smaller working articulation meetings between community college and university departmental members involved in the same academic discipline. It is through these smaller working conferences that academic staff members from both types of institutions can discuss mutual problems, problems that are unique to the community college, and through these discussions solve many of the articulation problems that could never be reached at the administrative level. These meetings of individuals of similar academic interests also constitute the most effective means of giving university staff members the opportunity of gaining an insight into the uniqueness of this institution called the comprehensive community college.

University efforts have gone beyond the "conference" level. University committees have studied increased financial aid and scholarships for community college transfers, the transfer of general education credits, the appropriate time to allow individuals to transfer who did not meet university entrance requirements upon graduation from high school, work on academic majors while still enrolled in community colleges, and means through which "space" will be made available to the transfer when he completes his community college curriculum. University research bureaus have involved themselves in research on the community college transfer student and his success, or lack of it, at the university. University admissions officers have made themselves increasingly available to community college personnel and have provided "feedback" information that should be of great value to community college administrators. Most Illinois universities have appointed staff members to coordinate institutional efforts in the community college field. The university, in other words, is involved in the process of encouraging the growth and development of community colleges as partners in the higher education enterprise of the state.

As indicated earlier, the chairman of this panel expects me to present my perception of what this all means to the community college, the transfer student, and articulation efforts of the future. For what they are worth, here they are:

1. Some old articulation problems will continue to exist and some new ones will emerge. However, when the mass of community college transfers hit the university, many of the articulation problems that are present today will no longer exist.

2. Community college students, in the future, who do not meet university entrance requirements upon graduation from high school, will not be allowed to transfer until they complete the requirements for the Associate Degree.

3. Universities will accept community college college-parallel programs as meeting general education requirements of the university. President Sachs of Northeastern Illinois State College made this suggestion to his staff last January and it recently was adopted by his faculty as institutional policy. In a memo to his staff on January 12, 1967, President Sachs said:

> Since all state-supported four-year institutions must make this adjustment, the problems of articulation will be incredible if approached in the traditional framework of matching courses. With junior college graduates entering as many as twelve different senior institutions with twelve distinct approaches to general education, how shall the junior college prepare its students for transfer? Can this problem be resolved in a way which will encourage able junior college students to continue their educations?
>
> The problem can be solved if all of the public senior colleges in Illinois agree to accept the first two years of transfer credit as a block entitling the student to junior standing without any attempt to match courses or credits. I suggest that we say to the transfer student with a respectable junior college record, "You are a junior. You have this two-year package and we do not ask you to take lower division courses to match our own general education program. You are eligible to take upper division courses to complete our degree requirements. If you take courses for which we have lower division general education prerequisites, it is your responsibility to discuss such courses with an appropriate

> advisor to see if you have the general background needed. You must accept the responsibility for deciding whether you are prepared for a course or not."
>
> Unless we are willing to try some scheme based on mutual respect, articulation between the many junior colleges anticipated and the increasing number of senior institutions will become a nightmare. The junior college transfer will find himself still a sophomore or even a freshman; transfer from a junior college to a senior institution will be inhibited; college students in Illinois will not be well served by the institutions of higher education in the state.

Other universities will move in this direction thus solving one major articulation problem in the process.

4. Increased financial aid will be made available to the transfer student.

5. Increased efforts will be made to preserve institutional autonomy.

6. Articulation emphasis in the state will shift from state level discussions of articulation theory, to the "nuts and bolts" level of articulation in individual academic areas.

The articulation process will not convert all university staff members to a full, or even partial, understanding of the function of the community college. Nothing succeeds 100 per cent. There are individuals on community college staffs who are not committed to the community college philosophy either. However, the evidence is most clear that, in Illinois the universities have committed themselves to a continued study and evaluation of the community college transfer student and to the solution of his problems.

ARTICULATION AND JUNIOR COLLEGE STUDENTS

G. Robert Darnes

I would like to present three ideas which I consider to be basic to the articulation problems of junior college transfer students. Those in the audience may wish to direct questions concerning these areas to members of the panel. Somewhere in our deliberations it seems to me that we should include a study or reevaluation of three topics that I will mention and which I consider to be of equal importance.

First, junior colleges should examine and refine both their procedures for admission to the junior college as well as policies of admission to curricula within the college. In this era of rapidly developing new colleges, both for reasons of expediency and possibly an element of newness, certain well-established practices of student admissions have not been required from all students. There may be students now enrolled in college transfer courses who will find it difficult to transfer those courses and pursue successfully more advanced work in baccalaureate degree programs. There have been instances when late enrollees have been permitted to start their course work without having been counseled, pre-tested, or who have not met the basic admission requirements of the college. There may have been cases when there has been a tendency to be over "enrollment number" conscious. One only has to note the difference in the number of students involved in "ACT" Freshman Profile Chart and the number of students that institutions list as being enrolled in the Freshman Class.

We have a few individuals who believe that if a college has pre-counseling and pre-testing of students before admission to curricula that this is another way of stating that we do not have an open-door admission policy to the junior college. This I do not believe. However, I do believe that part of the comprehensive junior college program is the counseling and testing procedure by which students are placed in the program where they have a reasonable opportunity for success and, should they not have this ability, then it is the responsibility of the junior college to offer opportunities for the students to remove their academic deficiencies. When junior college transfers go to the university, they will have to compete and find their place with students who, in most instances, did not have many academic deficiencies when entering college. Junior colleges need to establish research projects along with senior institutions to evaluate the success of their transfer students, to evaluate the success of the junior college instructional program, and to compare the results of instruction of courses taken in the junior college with native students at the university. We are making a big attempt to do that very thing in the articulation study now being carried on through the Council on Articulation. I am sure most of you are aware of that study. I will not take time to discuss it but I would answer questions concerning it.

Second, senior institutions should reexamine and define their procedures for evaluating the transcripts and credits of transfer students. The study to which I previously referred is bringing this to the forefront on several campuses. The variations in general education requirements and other non-major specifically required courses by colleges within universities must to a certain degree be standardized. I'm sure that none of us would ever under any circumstances want to take away from the college conferring the degree any of its autonomy, but I'm sure that many of us recognize that there are cases when the transcript is either evaluated by a clerk or a secretary or where the student is permitted to enroll and attend a semester before the credits are finally evaluated and the additional requirements for the degree identified for the student. I can tell you for the study that we're doing on the success of transfer students that the highest frequency rate of questions unanswered is that question where the institution is asked to state how many hours a student needs to take to complete the curriculum in which he is enrolled. Senior institutions need to give continuous study to this procedure.

Let me present a third area. Everyone in this room recognizes variations of requirements for completion of curricula that exist between colleges and universities. I would be the last to say that this is undesirable. I am sure these variations will always exist. As long as they do exist we must also recognize that no junior college program could completely articulate with every university and still give the local junior college autonomy over its program. So that the junior college does not "rubber stamp" the first two years of a senior institution's curriculum and thereby become, for realistic purposes, a branch campus, we need to give thought and study to what is a good effort.

What can we consider to be an acceptable record of transferability from a junior college program? If the average junior college graduate can transfer in the same curricula to a senior institution and with the addition of only a summer school to complete the baccalaureate degree in two years, is this a good record? It would seem to me that we should give thought to determining what is a percentage of transferability of credits by which both junior and senior institutions can say that if one falls within this limit, the institutions have done as good a job as is possible to do on all campuses for all students within the framework that we must operate.

I recognize these three areas as the big, broad, general areas that are in need of attention. Also, evaluation and research is necessary as we develop a process of articulation of junior college credits to a senior institution. I'm also sure that this is a problem that will never be completely answered. It is one on which we will have discussions and conferences for many years to come.

The Development of a Science Cluster for
Associate Degree Health Occupations Curricula . . . . Seminar Session

Chairman. . . . . .Hazel J. Kellams
Nursing Education Consultant, Office of the Superintendent of Public Instruction

Speaker . . . . Pauline Gratz
Associate Professor of Natural Sciences
Department of Science Education, Teachers College, Columbia University

Recorder. . . . . .Keith Hawxby
Assistant Professor of Natural Science, Robert Morris College

THE DEVELOPMENT OF A SCIENCE CLUSTER FOR ASSOCIATE DEGREE HEALTH OCCUPATIONS CURRICULA

Dr. Pauline Gratz

Those of you who teach science in your respective junior colleges recognize, in general, three groups of students. First there are those who plan to pursue science as a career and will therefore go on for a sequence of advanced courses as transfer students. The second group are broadly categorized as non-science majors who require some knowledge of science for general education. The third group are different from those who plan to major in science or those who plan to take science as part of their general education. They are the students who require science courses which will prepare them for an occupational field. Within the latter group are students with needs somewhat different from those of the prospective scientist, the average citizen, or the electronic technician. These are students who plan to enter occupational fields that require the knowledge and use of science in their work with people. Students preparing to enter one of the health technologies exemplify this group and would include future nurses, dental technologists and other emerging health occupations. What kind of science should a student seeking an occupation in a health technology have?

It is widely acknowledged that the underlying foundation for practice in the health technologies is derived from the physical and biological sciences as well as the psycho-social sciences. It is also acknowledged that students preparing for occupations in health technologies do not need the detailed knowledge and technical skill of the professional scientist. However, they require an understanding of the methods of scientific inquiry, as well as a body of scientific knowledge that will help them to practice their vocation.

You are probably familiar with the fact that the American Association of Junior Colleges in 1966 organized a liason committee with the National Health Council to discuss occupations in the medical field. You are also probably familiar with the guidebook on health careers which the National Health Council publishes. The Council represents about 70 medical and professional organizations in the health field and it is through this joint effort that a concerted drive will be made to concentrate on the contributions the community college can make in training personnel for these understaffed fields.

One development of this joint effort is the promising trend of a "core curriculum" concept in which general areas of knowledge, skills and understandings common to all health technologies have been identified. These commonalities constitute the basis for building a common science experience for the technology that will be studied during subsequent semesters.

In analyzing emerging jobs in health and medical work, I note some new career lines. Here are some of the titles: Biomedical Electronic Technician, Director of Hospital Volunteer Services, Occupational Therapy Assistant, Medical Emergency Technicians, Inhalation Therapy Technician, Operating Room Technician, Opthalmic Dispenser, Radioisotope Technician, Hospital Ward Manager. These titles have been given to occupations which are part of the process of health care. What kind of education in the sciences should these people experience?

Some professional groups are resistant to the idea that you can provide curricular offerings to a student who is heading for an occupation at the same time you provide similar experiences to a student who is going on to the university. I hope you will be open-minded and view the student as a human being who has a long life to live, and who is facing more than two years in the college. Not only as a member of health occupations but as citizens, these students will be called upon to make decisions regarding the care of their children, their families, and a variety of individual problems they must face in daily living. This implies the need for sufficient knowledge of selected science principles to enable them to protect the health of the people with which they deal and to contribute to the maintenance of a safe environment in which they and others live. It also suggests an intelligent understanding of such current and varied matters as fluoridation of water, air pollution, desynchronosis, nuclear radiation, food chains, inborn errors of metabolism, and other environmental problems.

The problem before us, therefore, is to characterize a science cluster which has a dual purpose. First, the need for a voting and supporting non-scientist who understands the work scientists do and their contribution to solving contemporary problems. Such a citizen needs a valid image of research and of scientific knowledge. These students need to be concerned with science as inquiry. They need an effective look at the fluctuations of scientific research and to see how the scientist tries to master the intricacies of nature within the confines of available methods of research and most of all to understand the tenuous accuracy of scientific knowledge. The experiences developed in science courses should make it possible for students to understand the exact tangible situations which limit "scientific truth" and the application of the "truth" he is taught.

A second purpose, should be the relation of man to his environment or human ecology. Science experiences should be designed to examine the interrelationship between the concepts and content of different science disciplinary groups as they attempt to understand man and his relationship to the environment. It is from this purpoee, that I believe the student can become aware that the study of man adapted for change in a changing environment reflects the impingement of science on contemporary life and leads to interpretation of some aspects of the contemporary problems that arise in life.

In developing a science cluster with these two purposes in mind, it seems to me that two goals can be achieved. First, the students gain a core of knowledge based upon new interdisciplinary developments in the physical and biological sciences which are significant to the health needs of man. Second, the students develop an appreciation of current research developments in science and their application to man and his contemporary environmental problems.

How are these goals to be achieved? A random selection of courses from a score of specialized offerings will not necessarily develop the capacity for continuous intellectual growth required for intelligent citizenship. Instruction in Anatomy and Physiology, Microbiology and Chemistry for example can provide a limited basis for mastering the clinical courses in the health occupations, but will they allow the student to realize the value of science as it relates to the major activities and problems of the time. I would hope that the development of a science cluster for students in health occupations would not be impeded by the transfer of the hospital program science curriculum to an institution of higher education.

It is interesting to note that basic science departments in colleges across the country are discovering that while their divisions have been advantageous because of experience and ease of organization, they often violate good pedagogic principles. For example, a student interested in a career in the area of Growth and Development would have to take separate courses in embryology, cytology, genetics, biochemistry, physiology, psychology etc. From a pedagogic point of view might it not be better to devote a number of weeks to the integrated teaching of growth and development which would include embryology, evolutionary biochemistry, physiology of reproduction, psychology of evolution and child bearing, bacterial genetics, specific genetics, psysiology of growth and drugs and development?

It is conceivable that a variety of organizations might be attempted in developing a science cluster. I should like to tell you about an organization which is currently being tried out at Teachers College, Columbia University. Initially the problem arose in somewhat similar circumstances that have been alluded to here. In February, 1965 an Interdepartmental collaboration in Health, Health Education and related areas was held. Out of this collaboration a committee was appointed with the speaker as Associate Chairman. The Committee on Science Courses Related to Teachers College Health Programs undertook the task of reviewing what basic science courses were needed for the represented departments comprising the committee, courses which were available in Teachers College, General Studies and the Graduate Faculty of Pure Sciences and exploring the development of a cluster of science courses which would be useful to members of the fields related to health. The investigation by the committee led to the development of five science courses offered under the general title of Human Ecology. Four of the courses are taught in the Department of Science Education by myself with resource personnel as needed. The fifth course is taught in the Department of Nursing Education. Some students register for all five courses, some for one or two. We have been able to so arrange the courses that all five may be taken in an academic year plus a summer session.

The content for each course was selected on the basis of the expressed needs of various representatives of several health and health-related departments, whose requirements were predictably common. Five broad areas of content emerged from the investigation. First, the desire to understand more concerning the physico-chemical and biological environment in which man lives. The concept of Life Space is very old as a concept but very new as an interdisciplinary science. It is currently referred to as Environmental Science. The second area concerned the problems of adaptability and adjustment of man to the changing conditions in the environment. Man apparently has a much wider range of adaptive potentialities than previously thought, but there must be limits to the range of human adaptability. Research indicates it would be of the utmost importance to determine these limits and thresholds. The third area pertained to the application of the principles of cybernetics to man as he adjusts to a changing internal and external environment. The basic processes of self-regulation in organisms suggests a model of regulation which can be used to explain the myriad feedback mechanisms in both man's internal and external environment. The fourth area of concern involved reproduction and fertility in human populations. The life cycle of man can be viewed as an ever changing developmental trajectory which is determined by the interaction between the genotype and the environments through which man passes. The orderly sequence of the stages in the developmental trajectory represents the integration of many complex processes which are still unknown. The final area indicated the need to understand the interaction between the ecologies of man and other large animals and those of their parasites.

On the basis of these five broad areas, five courses covering an academic year and a six week summer seesion are conceived as follows.

TI 4102 entitled the Physico-chemical and Biological Environment focuses upon man's environment and examines four major relationships to current health problems: the role of water, gases and pressure; the role of weather type and climatic zone; the role of solar and nuclear radiation; and the role of food sources and population growth. Everyone is aware of the potential dangers inherent in radioactive fallout, in air pollution, in the contamination of food and water supplies and in the use of drugs and pesticides. Thus the study of certain biological effects of environmental pollutants will contribute to an understanding of specific health problems.

TI 4104, Adaptation and Adjustment to the Environment examines evidence that man can develop some form of physiological tolerance to air pollutants, much as he can become immunized to poisons or infectious agents. Historical experience indicates that mankind as a whole, if not individual men, can become somewhat adapted to the physiological stresses of crowding, the horrors of war, concentration camps, as well as the fumes of automotive exhausts. But, adaptation to an unhealthy environment may imply dire consequences for the future. What shall men have to pay in the future for his individual and/or national adaptation?

TI 4103, Organic Control Systems in Man deals with the application of Weiner's theory of Cybernetics and inquires into how man as a living system maintains a steady state by internal structural and functional mechanisms. These mechanisms operate by feedback processes and the regulations selected for consideration can range from the maintenance of a relatively constant temperature in a variable external environment to adjustments to the influence of gravity. Man's health and well-being consequently depends upon the proper maintenance of these structural and functional mechanisms.

TI 4105 is called Growth, Maturation and Aging. This area concerns the interaction between the human genotype and the environments through which he passes. The main processes of this sequence are growth, maturation, and senescence. The sequence begins with the fertilization of the ovum and involves growth, cellular differentiation, and morphogenesis. It proceeds to maturation, a new cycle of development and then to degenerative changes which ultimately lead to death. Man is particularly vulnerable to stresses from his total environmental surroundings during certain stages of his life sequence, particularly when he is an embryo, a newborn, an adolescent and aged. The environmental impact which modify the orderly sequence of this developmental trajectory lead to a large variety of health problems.

TI 2320 is entitled Principles of Epidemiology and deals with the interaction of man and the ecosystem of the parasite. In other words, medical ecology. It is important that there be some study of the factors governing the occurrence of disease or abnormality in a population group, the adaptation of the parasite to changes in its ecosystem, and man's reliance upon certain symbionic relationships with microorganisms.

The program is currently in its second year and I am convinced that it is possible and feasible to offer a science cluster for students preparing for health or health related fields. The cluster suggested here studies the responses that man makes to his environment in order to deal with those health problems which are pertinent to current developments in environmental science. In addition, such a science cluster meets the students occupational goals and also provides the student with the scientific skills to analyze the variables in those everyday decisions affecting his own welfare.

There is no doubt that other organizations are possible. All aspects of a science cluster, including curricular developments the instructional methods used, the classroom atmosphere, the nature of the laboratory studies, and the evaluation procedures used, should emanate and derive their validity from the course objectives. The course objectives, in turn, should be expressed in behavioral terms and should concern themselves with the implementation of the kinds of activities that constitute science.

The science cluster developed for health technology students should not be regarded as a service course or as a foundational course to the other sciences. It should not be a course about science, it should be a course in science. It should be exploratory in nature and should involve the student in scientific activity in the laboratory. Lecture, films, discussion, and evaluation activities should all help give direction to the courses.

The laboratory is definitely essential for any real understanding of science. Laboratory here is defined as actual student participation in discovery. An experience which includes some experimentation and independent investigation, and which fosters appreciation of science as inquiry, not just routine practice with techniques or with repetition of known results.

On some campuses the numbers of students involved are burgeoning and in many instances the conventional laboratory approaches are not possible. This implies a fresh approach to traditional ideas of the laboratory, particularly approaches that are adaptable to modern classes growing in size. In many colleges Audio-Tutorial laboratories have replaced the traditional laboratory experience.

If a series of science courses is to flourish and become distinctive, there must be a genuine commitment to them by the department chairman, the Dean and the President of the institution. Ideally, the courses should not be under the jurisdiction of any other science department in the institution. In large institutions, it might well be a separate department, with its own head who reports directly to the Dean, just as the heads of botany, zoology, chemistry and physics do. The Dean, in turn, should accord equal status to the individuals who teach the science courses to students in health technologies as is accorded to those who teach the specialized science courses. Certainly the staff who teaches these science courses should have its own space and equipment so that they will not continuously have to borrow from other departments.

The faculty for these science courses should teach the courses because they have a desire to do it, not because they are assigned to teach them. Ideally, the faculty for such a science cluster should be hired in the open market on the basis of a compelling interest in and deep commitment to the philosophy of this approach and because their own educational background especially qualifies them to develop and teach such a course. Ideally, the textual and laboratory materials and study aids should be custom made, i.e. written by the staff members to fit the courses as conceived and offered in their own institution. It is of course, advantageous to exchange ideas with others who are engaged in highly successful science courses elsewhere. But to lift the curriculum in to from one institution to another, without modification or adaptation is usually highly unsatisfactory.

In summary, I believe that the development of a science cluster for Associate Degree Health Occupations Curricula should encompass the following:

1. It should foster intellectual growth for intelligent citizenship;

2. It should focus upon contemporary environmental health problems which are common to all health occupations curricula;

3. It should emphasize scientific inquiry through laboratory work;

4. It should embrace a fresh approach to science teaching through the use of the new multimedia available;

5. It should afford the faculty an opportunity to develop curriculum materials and experiences which are unique to their commitment;

6. It should be accorded the same status as other specialized science courses; and finally, it should represent a strong departure from the old ideas of what science for nursing, dental technology or medical technology has always embodied.

SUMMARY OF GROUP DISCUSSION

Keith Hawxby

Dr. Gratz' topic was concerned with the teaching of a "cluster" of courses related to the health occupation curricula. Most of the discussion that followed centered on the lateral mobility of such a series of courses. The speaker pointed out that the courses weren't designed specifically as transfer courses and suggested that it was up to the four-year institutions to change their "standards" to allow credit for these courses. She also suggested that these courses could be incorporated into a one or two-year sequence very easily as all five courses would not have to be taught. The courses were designed so no prerequisite would be required and if the student was lacking in some particular area, the instructor should take time to bring the student up-to-date in that area. The instructor should be proficient enough to fill in background material if necessary. Resource personnel could be used in a particular area if needed.

The speaker pointed out the need for a laboratory based on the "discovery approach" where the student does not necessarily always succeed or determine the "correct answer".

Dr. Gratz also emphasized that these courses are primarily background courses and the training of a student for a particular job should be left to a specialist in that field. The courses were designed primarily for a student in health education department and therefore admission was for only health education students.

Development of Title I Programs . . . . Seminar Session

Chairman. . . . . John W. Bouseman
Assistant Executive Dean for Academic Affairs
Central Y.M.C.A. Community College

Panel

Bruce R. Trester
Continuing Education Officer,
Illinois Board of Higher Education

Ronald Hallstrom
Dean of Vocational-Technical
Education, Rock Valley College

Doyle O. Bon Jour
Dean, Fenger Branch,
Chicago City College

Robert W. Jensen
Dean of Evening College and Community Services, Black Hawk College

Recorder . . . . William G. Chase
Federal Project Coordinator, Joliet Junior College

SUMMARY

William G. Chase, Recorder

The chairman called for an informal discussion. Bruce Trester gave a brief history of Title I, HEA and emphasized the point that Community Colleges ought to be among the participating agents of Title I. He further emphasized that the Community College is uniquely organized to qualify for Title I funds.

Doyle O. Bon Jour, a member of the Continuing Education and Community Service Council, said that Community Colleges could count on the active support of the Council when applying for Title I funds. The Council determines which colleges and universities in the State of Illinois shall qualify for Federal assistance under Title I.

Robert W. Jensen and Ronald Hallstrom, also members of the Council, both emphasized and urged that junior colleges should become involved in Title I funds.

Each category of Title I Project evaluation was explained by Dr. Bon Jour.

Robert W. Jensen advised that anyone submitting a project should seek out help from someone who has already written a project. He stressed that the summary of the project was very important and that it should be appropriate, well-defined and attractive.

Dr. Trester handed out Title I projects to all in attendance that had been accepted previously. It was pointed out that these projects could perhaps serve as an aid to those who may be contemplating writing a project under Title I.

All individuals in attendance had an opportunity to participate and to ask questions of the panel relative to Title I.

Innovative Ideas in Teaching . . . . Seminar Session

Chairman . . . . James S. Spencer

Panel

Hyman M. Chausow Vice Chancellor for Academic Affairs, Chicago City College	Robert B. Lorenz Assistant Professor of Educational Psychology, University of Illinois
John A. Easley Professor of Secondary Education, University of Illinois	Richard L. Ducote Assistant Dean of Instructional Services, College of DuPage

Recorder . . . . James Harvey
Dean of Students, Wm. Rainey Harper College

INNOVATIVE IDEAS IN TEACHING

Hyman M. Chausow

To talk about innovation in education in fifteen minutes is quite an innovative job in itself. Last night one of my colleagues asked me if I was going to talk about old innovative ideas or new innovative ideas. I'm still trying to figure that one out.

But briefly, if you're going to innovate you have to have some purpose for innovation and the purpose I'd like to put before the group is quality education. Unless you know what your objectives are so that you can evaluate your attainment, innovations or changes in themselves mean nothing. We have lots of "creative people"; however, they may create chaos. But we're talking about the need to know where we're going, and we need to try to think of ways that may be new of achieving our goals.

In T.V. one of the interesting things we learned from the beginning was that when we brought in experienced teachers and gave them the job of preparing a course on a new medium -- open circuit television -- where their colleagues, their friends, their students, their professors at the university, their mothers-in-law, or anybody else could look in on them, the motivation was there to do the best job. Interestingly enough the first things we asked them for were explicit statements of their objectives and here our people have been teaching fifteen or twenty years and they really didn't know what we were talking about. All these years these objectives were implicit. They knew what they were but nobody else did. The first statements that we got were topics, sections of an outline, but not really behavior that we're trying to change. So the first thing we have to do for ourselves, for the program, is to define the objectives in behavioral terms because education is to change behavior and change behavior to some place or some thing.

There are some excellent studies on objectives. The taxonomy of educational objectives - Bloom, Krathwold, and others, - dealing with the so-called cognitive domain and the effective domain do a beautiful job of defining these things and showing how you can measure for these objectives. But that's not the primary purpose of this meeting. We want to talk about some of the ideas, some of the things that have occurred, and I'm going to talk about what has happened in the Chicago City College itself.

The one principle that is very important is that if you have an instructor or a faculty member who is motivated (working for his Ph.D.) he will spend many creative hours beyond his normal work load. This is the kind of motivation you need to be creative and get results. But, on the other hand, you also need time. One of the things we learned is that if you want results you've got to free teachers so they have the time to innovate. Now if you can put the two together, if you have motivated people and give them time, that to me is a very important goal. It is important also to get these people together to exchange ideas. I'll try to sketch very quickly how the exchange of ideas took place and how a new medium of experienced teachers developed new ways of achieving objectives.

Let me just go over a few of the ideas that have developed in our setting. One big area that has been going around is programmed learning. Now programmed learning, if we had the time to go into it, -- the initial half step approach that Skinner has as against the scrambled approach of Crowder, the adjunctive devise of Pressey and others -- gave us some ideas in regard to television. How do you get students involved with faculty when you have a red eye, a television camera, between the teacher and student. Is it a one way street? I think our experience shows it is not. There is a tremendous amount of feedback. One of the areas is programmed learning and let me just give you a few examples of what we have done. Teachers, given the idea of programming, began to think of ways of introducing it into the course. Every instructor develops a study guide for his course. This in itself is a tremendous innovative device where the teacher puts down his objectives in behavioral terms, organizes his learning experiences to achieve these objectives and develops the evaluation techniques to measure his results. How to get materials is included here. He's talking to the student directly as he's on the air and the student is able to follow along. For example, black and white on television -- how do you talk about art? You do that by putting a colored picture in the study guide so while he's talking about shapes and tones the student can see it in the study guide. You can figure out these things, but in regard to programmed learning we suggested they use any technique they want. One of the things that developed in a course that I have here was to ask the instructor to think of any aspect of his course that students has some difficulty with in the classroom. This particular instructor said in his course students didn't understand Aristotle's ethics. He then programmed, using the Crowder scramble approach, the readings of Aristotle's ethics. Now in our setup at the college level our belief is the adjunctive device. We want the students to do the primary work themselves. Our use of programming is to help the student understand what he'd done. We don't feel that at our level and in trying to reach the higher end of the continuing of objectives, critical thinking for example, that the initial half step is the way we want to go. We don't deny it, but here's an example in which the instructor starts off with the idea that students have read Aristotle's ethics. Now if you haven't read it there's no use going into it further. He starts out with Chapter I. Now in Chapter I Aristotle talks about good in goodness. What does he mean by that? -- and the student is given some choices. If he thinks the answer is "B" he is told to turn to page 9 and he reads -- you answered so and so, you are wrong, if it's the wrong answer. Then there are a couple of paragraphs of explanations, additional information, and the student is told to go back to page one again. He reads page one again, the question is Oh I see now -- the answer is "C", and it tells him to turn to page thirteen. He turns to page 13 and it says you answered whatever it is, you are correct. But then there is additional information to show why it is correct - immediate reinforcement. By going thru Aristotle's ethics this way, although it was prepared for television students, when you use it in the classroom your recording never had that kind of discussion before. But this is hard work to do it that way, and if we're interested in the adjunctive device we have developed a form of modification of the Pressey approach. You remember, some of you, that Pressey used a punch board and you kept punching it until you got the right answer. But that can be messy, difficult and expensive so we came across a form called colored tutor. Now this is a chemically treated answer sheet. This is given to the student in advance. The student at the end of a unit, after he has done the work, is then asked to answer certain questions. Now on this sheet he takes questions no. 1 - a, b, c, d -- if the student answers b. let us say, he dampens the answer he thinks is correct. If it turns red it says "stop" you have the wrong answer, try again. The student says "Oh, I see the answer is D." and if he dampens D. and it turns green he gets immediate reinforcement and goes on. We use this now for all courses. To give you an example on a taped course, on a course we did "live" and taped to show the next year, where everything else was kept the same, the only thing we introduced was the colored tutor idea. The final mean increased 12½ points on the final examination, the retention went up from 70 to 80% of the original class enrollment, and the rating of the course was over 90% excellent and superior. Students just love this.

Now other instructors said, if I were home and I had this I'd want to know why I got the red marks. So other instructors came along with a student response guide. The student response guide says if you got a red mark you go to the response guide and it will give you an idea of where to go to find out why your answer is red.

Can you imagine the value for an instructor when he collects these things? If he has received a lot of red marks on a certain item you see what you've got - an immediate option analysis. You can then ask yourself the question - was the question worded badly? Were the choices not very good? or do I need more learning experience in this area that this is important? You have a constant interaction and feedback throughout the course, and then you see what happens when you improve your course or revise your course for the following year.

Another idea that has come out, and I'm just talking about one area now -- programmed learning -- the idea of search inquiry programs. This we are just beginning to play around with. I say this because we're experimenting. It's a little card you pull off and it tells you what your fortune is on the back -- or whatever it is -- this one is designed in such a way that behind the a, b, c, d and e are codes that I think everybody understands. Ace, King, Queen, Jack, ten and there's no such thing as a right answer here. You pull the problem and you get four or five students together to work on this problem. When they're ready you give them this card, one card to the four or five kids, and they begin to think of the different proposals and solutions to the problem. They come to the concensus that maybe the answer is b. and they pull off the tab. If they get an Ace, immediate reinforcement, they go on to the next problem. If they get a 10 they've really missed the boat. Now the serendipity that comes in with this in terms of the socialization and interactions of students is interesting. When a teacher is there, the students don't react and don't really come out with their ideas, but in a situation such as this they do react. There have been some studies that show if you put an isolate, a student who is not accepted by the group, into one of these little groups in about six weeks you cannot identify him any more as an isolate. There are many things we could do here. These are extremely important ideas.

Let me give you a few other things quickly. On T.V. itself we have experimented with programmed lessons right on the air. The University of Illinois I am sure has done this, but we too have been able to do it. It's almost like a 1 to 1 ratio. The instructor asks questions, waits for the response, has immediate reinforcement and goes on. It took the instructor two months to prepare one lesson so you need time -- you need people whose minds are open. Other things have come up in the course of the year. One instructor in English felt that the grading of a theme a week per student was a tremendous chore and he had an idea that he would like to talk to a plastic disc. Instead of writing his comments on a paper he just picked up a tape recorder, and as he was reading the student's paper, he talked to the student through the entire paper. Then these were mailed back to the students who could put it on a phonograph, or if the student didn't have one he could come into the library and play it. He could, in effect, sit with his instructor as his instructor was talking to him. Now we had 38 students in two sections for this one instructor. All 38 completed the course. No problems -- for home viewers -- 38 out of 38. All 38 said give us more of this. It is the best experience we've had. If you think of ways of meeting a problem and improving quality there are ways to do this.

I mentioned the study guides but let me give you just two other areas and then I'll stop. One is the use of video tape material. We have an experiment that is going on now that is very exciting. We have some portable video tape equipment at some of our schools, and one of the teachers is preparing a course for next spring in typing. He is preparing his material in his class now. Taping it. Then he plays the taped material to another class to get the reactions and to see what happens. He just called me the other day. He says he's amazed. In past semesters the "A" level of speed and accuracy was normally five out of 33. With his tapes and follow-up he tells me he just got the results -- 28 out of 33 achieved at the "A" level. He doesn't know what happened. But the concentration on the music and the typing is fantastic.

We have a tremendous problem with the disadvantaged. We freed ten people this last summer to do some thinking about it, get the blinders off, and we asked them to use the John Carroll approach from Harvard, and that is to assume the inflexible is flexible. The three credit hour is inflexible. The semester is inflexible. The 50 minute period is inflexible. The discipline approach by course is inflexible. Forget that. Keep your objectives in mind, organize material and see what happens. We now have it funded. We have 66 students involved in the program that is going to be fantastic. The interesting thing is these people are learning and now in the new project that is coming up for next year they're changing the basis again from what they've learned. Free people and let them go. We are in the process now, in the budget for next year, of including an item which we're calling the experimental center. We're going along with our faculty and staff to apply to us directly for full release time this spring and summer to work out curriculum improvement, special projects, and institutional research. Already you can feel a kind of ferment that is taking place. The last item I'd like to mention is that B. Lamar Johnson in his trips around the country has identified some junior colleges that look like they are innovative and he's setting up a so-called consortium this January. He's asked us to be one of some 15 junior colleges in the country to take some of our ideas and really move out with the idea of getting a kind of experimental college in the junior colleges.

THE USES OF PLATO
A COMPUTER CONTROLLED TEACHING SYSTEM

John A. Easley, Jr.

The use of a high-speed digital computer as a central control element provides great flexibility in an automatic teaching system. Using a computer-based system like PLATO permits versatility in teaching logics, since changing the type of teacher merely requires changing the computer program but not the hardware. In addition, having access to the decision-making capacity of a large computer located as one unit permits complicated decisions to be made for each student. Such capacity would be prohibitively expensive to provide by means of decision-making equipment located at each student station. Studies of queing that occurs with multiple student requests show that the system could teach as many as a thousand students simultaneously without incurring a noticeable delay in processing any student's request.

The educational results thus far have been extremely encouraging. However, reliable conclusions on educational achievement must await the results of more thorough experiments now in progress which include larger numbers of students learning under a variety of conditions. The adaptability and usability of the system for a variety of purposes in education (including the behavioral and physical sciences) have been clearly demonstrated.

Introduction

During the past five years, the Coordinated Science Laboratory at the University of Illinois has developed and experimented with an automatic teaching system called PLATO in order to explore the possibilities of automation in individual instruction. The PLATO system utilizes a high-speed digital computer as the central control element for teaching a number of students simultaneously, while still allowing each student to proceed independently through the lesson material.

Three successive models of PLATO have evolved, each embodying improvements indicated by the previous model. The first consisted of a single student station connected to ILLIAC, a medium-speed computer built at the University of Illinois (4). The second model had two student stations, was connected first to ILLIAC and then to a CDC 1604 computer, and was used to study the problems created by multiple student use of the system (10). The third and current model has 20 student stations connected to the CDC 1604 computer.

The rules governing the teaching process are included in the program read into the central computer. A complete set of rules is referred to as a "teaching logic." The Coordinated Science Laboratory has experimented with two basically different types of teaching logics, a "tutorial" logic and an "inquiry" logic. A tutorial logic is designed to lead the student through a fixed sequence of topics, but it also provides branching between problems (which is under the student's control, voluntary or involuntary). In a lesson that uses the tutorial teaching logic, the system first presents facts and examples and then asks questions covering the material presented. The student composes answers, and when he is ready, he asks the system for a judgment. If he finds the questions too difficult, he may branch to easier material. Involuntary branching occurs when evaluations of the student performance are included in the lesson program, which prescribes branching if predetermined criteria are met by the student.

An inquiry teaching logic, on the other hand, can be characterized as a system permitting dialogues between the student and the computer. Typically, in a lesson that uses an inquiry teaching logic, general problems are presented to the student. To solve them, he must request and organize appropriate information from the computer. In such a teaching logic, the student may be asked to demonstrate his achievement by answering questions, but he may also seek information within a given range of possibilities in order to answer such questions.

Both types of teaching logics and a variety of lesson materials have been employed in exploratory studies in order to test the capabilities of the system. Some of these exploratory studies have investigated system variables such as data rates between the students and the system (2). Other studies have dealt with the psychological aspects of the lessons and variations in the teaching logics (1, 7, 8).

The PLATO Teaching System

The system provides for communication in two directions. Each student is provided with both an electronic keyset as a means of communicating with the central computer and a television screen for viewing information selected by the computer. The student's main keyset resembles a typewriter keyboard, and the keys can be assigned any functions the teacher desires. Usually, the alphanumeric characters are assigned positions similar to those on a standard typewriter keyboard, and punctuation, special characters, or special control functions are assigned to the extra keys.

Electronic Book. There are two sources of information which are usually displayed on the student's television screen. These sources are called an electronic book and an electronic blackboard. The electronic book consists of a bank of slides prestored in an electronic slide selector which is controlled by the computer. In the latest model of PLATO, the random-access slide selector stores 122 slides and has a slide access time of less than a micro-second. Information stored in the slide selector is the type that would usually be found in a textbook or in class notes. Although the slide selector is shared by all of the students, the students can view the same or different slides simultaneously. This is accomplished by having the video information available from all slides concurrently, and by connecting electronically the students' television display to the proper video output.

Electronic Blackboard. The electronic blackboard consists of a computer-controlled storage tube for each student station. Diagrams, symbols, and words are plotted in a point-by-point fashion on the student's storage tube. Approximately 40 alphanumeric characters can be written on the student's blackboard per second, and the entire blackboard can be erased in two tenths of a second. This arrangement permits information (that cannot be predetermined) to be presented to the student, such as information generated while teaching the student. For example, the system can display a sketch of an experiment the student has requested or an answer the student has composed which cannot possibly be anticipated. The images from the blackboard and the electronic slide selector are superimposed on the student's television display, enabling the student to fill in blanks on the slide and compare his answer with the question. Information for a student can appear on his television screen from either the blackboard or the book or from both simultaneously.

Teaching Logics for the PLATO System

Original Tutorial Logic. The tutorial logic was the first of the two main types of teaching logics explored on the PLATO system. In this teaching logic, the keys were divided into two types-those used for inserting constructed responses to questions and those used by the student to control his progress through the lesson material. The lesson material was organized into two types of sequences: the main sequence, consisting of the minimum material that must be used by all the students, and the help sequences, provided for students who had difficulty with questions in the main sequence.

The student began by viewing text material in the main sequence. When he completed reading a page of text, he proceeded to the next page by pushing the button labeled "continue," or he returned to a preceding page by pushing the button labeled "reverse." As the student proceeded through the lesson, he was presented with questions. The teaching logic required that all the questions on a page be answered correctly before the student could continue. The student was allowed as many attempts as necessary to answer the question correctly. If he had difficulty with a question, he could push the button labeled "help," which took him into a help sequence pertaining to the question. After completing a help sequence, the student automatically returned to the question he was trying to answer in the main sequence.

In a later version of the original tutorial logic, as developed by *Braunfeld, different types of wrong* answers called for different help sequences. An error detector was used for automatically controlled branching. In addition, the later version of the original logic permitted some questions to be designated for monitoring by an evaluator in the computer program. The student's responses to monitored problems were used to determine whether he was branched forward to the next section of the main sequence or routed through material designed especially for students who failed the criterion test in the evaluator.

In order to prepare lesson material for the original tutorial logic, one had to organize the material into a set of slides (with at least one help slide for each question in the main sequence) as well as prepare a parameter tape. The parameter tape contained the answers to the questions, their location on the slide page, and the order in which the slides were logically connected. If the special help sequences and the evaluator were used, error categories had to be specified for the error detector and a list made of monitorized problems and their criteria for evaluation.

The most recent version of the PLATO tutorial logic, which is much more generalized than its predecessors, will be described in a later section of this article.

Inquiry Logic. While the tutorial logic serves well for many purposes, there are types of problems in which even more control should be given to the student as well as an opportunity to ask questions of the computer. To accomplish this, the inquiry teaching logics were written.

An inquiry teaching logic permits a student to request information. The computer correctly interprets the request and replies from stored information or calculated results. This logic provides, in effect, a syntax for the student to use in communicating with the computer. The student directs his learning by composing his own requests.

In the tutorial logics, the student communicates with the computer either through one of the control requests - turn the page, judge my answer, give me help - or he composes short answers which usually must match one of the several alternative stored responses. If he should type a question such as "What does 'exponent' mean?" the computer would only respond with a "no" since it treats the student's response as an answer. However, the inquiry logics provide a syntax by which a student can ask questions about the lesson he is studying. The syntax he uses can be viewed as a tree of choice points in which selections are made at each choice point.

By pushing the button labeled "lab," the student is shown the general categories of available information. Having chosen one of these categories, he is shown more detailed selections within that category. In general, successive subcategories can be chosen until the detailed classification is specified. However, it is often desirable to have the major categories specified independently, e.g., object, conditions it is exposed to, and particular properties about which information is desired. In such a case, the student can pass repeatedly through several successive levels of selection, once through for each general category. Specifications made within one general category can be stored and used in conjunction with those made within another category. When the requested information has been completely specified, it is displayed on the student's television screen.

Specification at choice points may seem a somewhat artifical way of asking a question, but it resembles the way one locates merchandise in a department store, and even elementary school children adapt to it easily. It requires only a slight rearrangement of ordinary language. For example, instead of typing "What's the effect of administering nitroglycerine on the heart rate of the patient?" the student in a PLATO teaching program for nurses who wished to ask this question typed coded numbers for the following sequence of phrases: return patient to original state, give drugs, select nitroglycerine, check condition of patient, vital signs, pulse rate. At this point the computer answered with the pulse rate (6). Students quickly learned the syntax required and usually formed such coded questions more rapidly than they could type them in English. The computer responded immediately, displaying information obtained by computation or from memory. The student proceeded to try other experiments until she was confident concerning the treatment of the patient.

An inquiry logic written for the PLATO system which deserves special comment is one that permits the student to solve mathematical problems that require many lines of work and for which all possible solutions cannot be anticipated (9). In this teaching logic, the student is informed whenever he violates any of the rules of mathematical logic. The computer does not store a set of correct solutions, but it does store the mathematical principles available to the student. The rules of mathematical logic are built into this teaching logic by means of decision programs. Thus, this logic simulates a teacher who watches students at work and tells them whenever they make an error but doesn't tell them what they should have written. The student is, in effect, asking whether each move he proposes is a valid one, a question to which he gets an immediate reply.

The PLATO Compiler. A PLATO compiler was developed in 1964 which permits simple preparation of all types of new teaching logics. With this compiler, educational researchers have prepared several new teaching logics suited to their own purposes in fields ranging from mathematics to the behavioral sciences.

Preparing an inquiry type teaching logic requires specifying the tree structure of the syntax the student uses to communicate with the computer. Preparing a tutorial logic also requires specifying the structure which the student or teacher uses in communication decisions with the computer. The PLATO compiler permits the logic designer to specify for each choice the next choice point to which each response leads. Each choice point can present a slide, some message printed on the blackboard, operate a piece of auxiliary equipment, etc. All of these details are specified in pseudo-English. Special decision rules are written as necessary using an augmented foreign language.

All of the PLATO programs or lessons written since the fall of 1964 have been written for the compiler. Many of the old lessons have been revised and reprogrammed using the compiler.

New PLATO Tutorial Logic. The new PLATO tutorial logic, written for the compiler, allows very flexible rules for the teacher (3). The teacher may allow the student to respond with long answers. Several help sequences are permitted, and many judgers are available, including a spelling judger (which prints "SP" instead of "NO" on the blackboard when a spelling mistake is made). Eight special effects are available for 16 different keys, such as disallowing certain keys at specific times in the lesson or introducing an inquiry procedure such as curve plotting, available upon student request. Special remedial or challenge sequences are possible. A comment page allows a student to make comments on the lesson at any time; an instructor page allows the student to communicate with the instructor via the PLATO display. Finally, as the most important feature, the new logic contains an author mode so that the teacher may insert or change page answers and page descriptions on line with the computer.

Interconnection of Student Stations. Although independence of student stations was initially thought desirable, many uses of station interconnections were later suggested. The interconnection was accomplished with a short addition to the resident computer program. This development has allowed teacher-student interactions, negotiation studies, and concept development exercises.

New Logic for Problem Solving. The more generalized version of the mathematical problem-solving logic is being written with the use of the compiler. This logic, incorporating improvements indicated through experience with the prototype, will allow the student to formulate his own problems and conjectures and work them out with the same supervision as if they had been problems stored by the author of the lesson. The judgment of student errors could be postponed, if desired, until the student requests that his work be marked. It is expected that this logic will be able to cope with problems in elementary algebra, logic and set theory, and some portions of geometry.

Student Records. One of the important features of the PLATO system is the "perfect workbook" of student performance kept by the computer. The student records include a record of each button pushed and the time at which it was pushed. This information is available in two forms: one form is a printed history of events that can be immediately scanned by the teacher; another form is one stored on magnetic tape that can be processed by the computer for a detailed statistical analysis.

Exploratory Studies Using the PLATO System

Student Performance and Queing Studies. Several studies, some of which have already been mentioned, have been completed using both the tutorial and the inquiry teaching logics. Lesson material drawn from mathematics, computer programing, and electrical engineering initially were programed with the original tutorial logic. Most of these studies employed approximately 10 to 12 students as subjects, each of whom attended three of four one-hour sessions. Results of some of these studies are available in another report (2).

Briefly, the results from the early investigations showed the following: (a) There was no significant difference between the post test scores of students who received instruction via the PLATO system and those who attended regular class. However, the amount of time spent on the lesson material was significantly less for the students working on PLATO; and (b) using over 50,000 student requests obtained with the lesson material, queing studies were performed. It was determined that a general purpose computer, having a high-speed capacity of 1.5 million bits, would allow 1,000 students to be tutored concurrently on eight different lessons without incurring a noticeable delay on any student's request.

University Courses. Recently, the new PLATO tutorial logic was used to program half of the material for a semester's work in a course in circuit analysis offered to electrical engineering junior and senior students. Although no detailed analysis or evaluation of the students' responses was made, some of the more obvious results showed that the students appreciated flexibility in the system, enjoyed features such as curve plotting, and thought the course material was markedly clarified by the PLATO lessons. At present, the logic is being used for credit courses in "How To Use the Library" and "Fortran Programming for Business and Commerce Students" as well as for the electrical engineering course. Evaluation of student performance will be made from the detailed records provided from the system.

Text Testing. Worthy of mention is a study now in progress which uses a logic basically tutorial in nature to record performance of students as they test new textbooks. The student works freely through a textbook, which is reproduced on the PLATO system, answering problems or questions at will. The on-line author input allows on-the-spot changes and revisions by the author. Data retrieval programs will give the author a variety of information useful in his next revision.

Studies Using Auxiliary Equipment. It should be noted that the PLATO system can include auxiliary devices operated under computer control. The inquiry training lesson used a computer-controlled motion picture projector (5). Physiological recording devices have also been used with the system (1). A more unusual study is one substituting a piece of experimental apparatus for a student at a station, with input from the experimental setup replacing the operator response at that station. A student at a second station can manipulate a real experiment through his station without ever touching the apparatus and can obtain the experimental results on his display.

Teaching with the PLATO system can be extremely varied since laboratory as well as classroom work is possible. Experiments may be performed which are either real (like those just described) or wholly simulated (like those referred to in the discussion of inquiry logics).

INNOVATIVE IDEAS IN TEACHING

Robert B. Lorenz

Education, according to John Culkin's 7 year old informant is "how kids learn stuff." Since we are committed to a quality education for the quantity, two issues seem worthy of your consideration:

1. How can we improve learning through the application of technology?

2. How can the Junior Colleges of Illinois cooperate in developing and using jointly high quality core programs of instruction?

If learning is the process of acquiring information and knowledge, and developing skills and attitudes, then teaching is the art of assisting others to learn by providing information, appropriate conditions and activities to facilitate learning (inevitable). If teachers are paid to change learner behavior they must have access to appropriate teaching-learning tools.

Rather than debating the advantages and disadvantages of a particular medium at this point, let us examine a model of communication related to the teaching-learning process. Claude Shannon's model of communication describes the following elements and functions: a source selects a message from a set of possible messages, encodes the message, transmits it as a signal across a communication channel to a receiver which decodes the message and delivers it to the destination. If the source represents an instructor, the range of messages he has to select from is a function of his experience, training, and background. The Task Force on Education report, Education for the Future of Illinois, December 1966, concluded that the improvement of education was a function of the quality of professional staff. Selecting qualified staff is the responsibility of administrators. Maintaining a high quality of education, the report goes on, depends on the provision of "effective instructional leadership".

Key factors in effective communication are the range of messages the sender can choose from, the degree to which the receiver understands the code used by the sender, the degree to which the capacity of the receiver allows him to respond in the way the sender wants him to respond, and the extent to which the sender can adjust his message to the receiver's capacity in the light of feedback.

Learning Cycle

Carpenter has recently assessed the development of instrumentation related to a learning cycle consisting of three phases: stimulus phase, perceptual phase and evaluation phase.

1. The STIMULUS OF DISPLAY phase has been abundantly instrumented.

Display devices and materials are often available for reaching our instructional objectives. New materials and programs are being developed constantly-is someone on your staff responsible for keeping the faculty informed about these matters?

Finn sees the current trends in the design of display systems following 3 patterns: more large group instruction, more individualized instruction, and more packaged programs. Mergers of hardware and software companies such as IBM and SRA are evidence that the latter will soon be forthcoming. The Trump plan analyses a course of instruction by asking 3 questions: What kinds of information can the student learn on his own, in large groups as easily as small groups, and what portions of the course depend on student interaction? The respective groupings, large group instruction, independent study and small group discussion are Trump's answers. The first offers economy of presentation or display time and a reduction in using instructors as repetitive dispensers of information.

In addition to locating and renting or purchasing commercially prepared instructional materials, few of which are directed at college level instruction and fewer of which fit your group of students precisely, under the guidance of graphic designers, materials may be prepared locally to better fit specific instructional objectives for a particular group of students.

2. The PERCEPTUAL COGNITIVE REACTIVE phase in Carpenter's cycle describes the student's response to the stimulus materials presented. The student needs some way to reflect, try solutions, make judgementr. The instrumentation of this phase has been largely neglected.

3. The EVALUATIVE phase has been largely neglected as far as instrumentation with the exception of P.I. and CAI. Recently student response systems have been used at the college level. The feedback information to a lecturer on his success in reaching previously stated objectives. The implication of instrumentating the evaluative phase is not merely to achieve "instant grades" for students but reflects a forceful confrontation on the success of the instruction.

Robert Heinrich has observed that "media tends to make instruction visible so that both content and method can be inspected, evaluated, and improved, whereas traditional instruction without technology, tends to remain hidden behind closed doors."

A film "Programming is a Process" describes an analysis designed to achieve success in reaching precisely stated instructional objectives. Drawn from experience in the armed forces, this model starts with a description of what the student should be able to do at the end of an instructional unit and proceeds to develop criterion items, gain a picture of entering student competencies and then proceeds to design the instructional sequence. The result is not programmed instruction as we have come to know it, but an exploration of alternatives and selection of the best mix. Briggs has added some criteria for selecting media used in such a program: effectiveness of display, convenience, and economy. Vernon Gerlach of Arizona State University was asked why, when such variety of media exists, he put his instruction on paper and 8mm films. His reply was "economics". It costs less to use one piece of hardware (8mm projector) for everything.

In what ways can the Junior Colleges cooperate to improve instruction? The Task Force on Education Report describes innovation as a deliberate, specific improvement on a substantial and extensive scale to help a school accomplish its objectives.

Gordon Blank listed several junior colleges presently in the vanguard of major innovational thrust: Arapahoe J.C., Littleton, California; Delta College, Michigan; Golden West College, California; Meramec Community College, Missouri; Miami-Dade Jr. College, Florida; Monroe Community College, Rochester, N.Y.; Oakland Community College, Michigan; Santa Fe Jr. College, Gainsville, Florida; and Western Piedmont Community College, Morgantown, North Carolina.

Educational innovations don't just happen - they are established. Innovation requires qualified personnel committed to seeking improvements, time to conduct study, planning and evaluation. The Report urged schools to cooperate to develop programs. Why wait for federal initiative?

According to Lee Dreyfus, president of the Wisconsin State College at Stephens Point, if a department is given the choice of spending $10,000 on a new man or technology, they will choose the former. The library has handled the problem differently - no choice between books or men is offered. The library gets money for books and the departments scramble to get their share.

Producing instruction in a mediated form so students can get (obtain) it "on demand" is a growing trend through language labs, electronic carrels, or DAIRS. The movement of information rather than people is hitting educational institutions as well as the business world in a McLuhan fashion. In an age of information overload, instructors can locate the most useful information, translate it to a useful form, organize it in an instructional package and make it accessible to students.

The systems approach in education, adapted from O.R. or systems analysis applications to the problems of business, is not the usual breaking of problems into small, manageable parts, but expanding the area covered to include all variables influencing solutions. An interdisciplinary team is customary. Design of the learning environment is one of the influences considered.

The interdisplinary team on an Instructional Development Systems Project, recently used at Michigan State, Syracuse University, the University of Colorado, and San Francisco State to improve instruction included specialists in media, instruction, and evaluation. The model used in this program had many decision points and was modified to fit the various campuses. The heartening note is that the project teams were considered valuable enough to be kept after the project ended.

Bucknell is a small Liberal Arts College (2700) which takes pride in a low student-faculty ratio and an optimum opportunity for individual attention to students. TV was not a critical factor for dealing with masses here. The problem was to identify instructional modes to replace the traditional group approach. In a typical O.R. style, the functions of the modes were defined as being capable of:

1. storing substantial content in a variety of forms,

2. being relatively simple for students to operate,

3. being flexible to accommodate varying rates of student progress, easy revision and refinement based on experience, and

4. a minimum commitment of time.

The answer was a series of electronic carrels near the library resulting in sophisticated instruction for individuals with greater opportunity for personal contact with the faculty originating the instruction.

Summary

The application of educational technology can improve the effectiveness and efficiency of the teaching-learning process. Costs of developing the software will exceed hardware costs. These R & D costs can be defrayed if the programs developed can be shared by other colleges. Costs are higher because more energy is spent integrating learning phases (display, response, evaluation) through design, production, and empirical measurement. The use of technology need not destroy the student-instructor relationship we value provided face-to-face meetings are part of the design.

INNOVATIVE IDEAS IN TEACHING

Richard L. Ducote

We speak of revolution and evolution in education today. In no area of educational activity are these concepts more acutely felt than in the junior college field. Revolution--the violent state of overthrow, confusion, disintegration, disorder. Evolution--the state of unfolding development, growth, the change from simple forms to those which are more complex or meaningful.

Are we in the midst of an educational revolution which has violently produced new concepts, which has brought us the new media and technology, the new devices and techniques, and all the countless "hardware" and "software" which is bombarding us from all sides? Is this an educational revolution? Or can we sit back in a few minutes of calm and sane reflection and admit to ourselves that we are taking part in yet another logical phase of development in an educational evolutionary process which has been fermenting and growing for generations.

De Tocqueville in his DEMOCRACY IN AMERICA, written in 1835, had this to say about American education at this time:

> "They (the Americans) have a lively faith in the perfectibility of man, they judge that the diffusion of knowledge must necessarily be advantageous, and the consequences of ignorance fatal; they all consider society as a body in a state of improvement, humanity as a changing scene, in which nothing is, or ought to be permanent, and they admit that what appears to them today to be good, may be superseded by something better tomorrow."

Surely De Tocqueville could easily have been describing the comprehensive community college of 1967.

Theorists tell us that any educational system is a reflection of the society which produced it. We would not educate today the way we did in the 18th century, or during the Civil War, or even at the turn of the century. Therefore, if education is a mirror of our society, then we can begin to understand the new technology. Biologists tell us that other species start their learning process with each new succeeding generation. But man does not do this. His education, and the education of his young, is built upon the past.

The new developments have three ingredients which have forced us to face the staggering problems concerned with information retrieval.

First, we have more information available. The Hon. Donald M. Fraser, Representative from Minnesota, recently made a speech to the Congress on the utilization of the information explosion. Mr. Fraser had this to say:

> "An important by-product of technological revolution and scientific research in this country is information--stacks of information, tons of information, bales of information, shelves and books and tapes and files and offices full of information.
>
> "Until recent years, most of us simply have allowed information to accumulate. And it may seem, as the reports, monographs, reviews, critiques, releases, and clippings flow over our desks every morning, that the only thing we can do with information is to accumulate it."

Representative Fraser did not point out that libraries in the past have been the chief collectors or repositories of knowledge. But they have, and they will continue to be so. But the scene is changing.

Our second ingredient is the growth and increase of the *will* to learn, the *need* to learn in our technological society. Those of us in the community college field have students who are college bound for training in a profession, or are vocationally directed toward preparing themselves for a trade or job by which they can earn a living. But their education and training, their certificate or their degree, are no longer enough. The explosion of knowledge and the technological change which accompanies it are expanding the horizon of continuing education almost to the point where no end is in sight. There is no longer such a thing as an "educated" person, or a "trained" person. For re-education and re-training will become part of his life process if he intends to survive in the society of the future.

Running concurrently with our first two ingredients of the information explosion and the need to learn in our technological society, comes our third ingredient--the technology itself.

Brown and Norberg have this to say in their book on educational media:

> "The long-delayed advance of technology in education has entered a stage of acceleration. Increasing use of newer media in the classroom calls for many changes: new designs for buildings, changes in the organization and scheduling of classes, sometimes rather drastic changes in

> instructional procedures that seem to strike at the very heart of the teacher-pupil relationship."

Just how will these changes affect education? Will they tend to "dehumanize" the instructional process? Will it place too much emphasis upon economy and efficiency, too little upon quality? Will administrators and instructors alike be able to come to realistic grips with the fact that you cannot place dial access, computer-aided instruction, information retrieval systems, or any other mechanized or automated processes down in the same organizational framework, or administrative pattern that we have had for decades and expect them to work or be effective.

Ironically, man learns to dread his own technological creations while at the same time relying upon them for his protection or his very salvation. We have the habit of saying that educators fear the machine. I would venture that teachers do not fear the machine, they simply do not have the time to program materials to effectively use the machine under our old organizational patterns. Technology's threat to education is not denying it or fearing it, but facing its dangers and problems with the time to adequately program for it.

Oddly enough, the problem is not that the machine will "mechanize" education, but that it will allow us to "humanize" education. When Mumford talks about "humanizing the machine", he is really talking about humanizing people.

Well, I have strayed far afield of my assigned topic of new developments and future possibilities of information retrieval. But I do not believe that you can deal with Dial-Access-Information-Retrieval-Systems, Computer Aided Instruction, and any other machine developments of the future without constructing a human base upon which to build.

Prospective developments for information retrieval systems of the future will probably center in three areas:

1. Student oriented programs

2. Teaching and research programs

3. Library or instructional resources programs

The research projects underway in all three areas are too many and detailed to deal with all. Certainly in regard to student oriented programs the Plato project which you have just heard discussed is one of the most dynamic in this area. Its concept of permitting dialogues between the student and the computer open whole new horizons in the learning process.

One of the most interesting recent developments in Information Retrieval will have unparalleled impact on instruction and research. Teachers are finding it more and more difficult to keep up in their field as information mounts. And the age old problem of bibliographical control still plagues us. But an informational retrieval system will assist the teacher, or student for that matter, in assembling material.

DATRIX, an information retrieval system of the Xerox Education Division, is a system of direct access to reference information, involving doctoral dissertations which this firm produces on microfilm. Human searching of this material is very time consuming, and with the number of doctoral dissertations well past the 200,000 mark, the cost of classifying and servicing this material is rising at a rapid rate.

Computers can now eliminate this burden by performing a thorough search of the data base, retrieving with great speed the desired bibliographic references, and provide an immediate printed listing of the material. The data base is kept up-to-date monthly by the addition of new dissertations being received. The indexing of the material for computer purposes is a set of key words, which are drawn from the dissertation titles themselves, subject headings, and added word descriptors. A list of these key index words is available to the user assisting him in asking the computer his question.

Let's take an example:

A junior college administrator may be interested in locating materials on problems of student personnel programs as they relate to administration. The searcher might select "student", "personnel", and "administration" as the key words used in his question. He notes in the key word list that "administration" has a frequency count of 100; that is, there are 100 references in the data base that contain the word "administration". The other words "student" and "personnel" may have a frequency of 30 and 50 respectively. He then specifies if material of interest must be described by all three of these key words, he specifies this condition. If this is the case he may end up with, let's say, 6 references. He may also indicate that he wishes material by any one of the three key words, and he would be given a reference list of much greater length--or 180 which would be the maximum sum of the frequency counts.

The possibilities of such a system for instruction and research are unlimited. And this could form the base of a computerized library catalog where your key words would in that case be your subject headings as assigned to books or to other materials.

The third area, that is of library applications, is perhaps the most staggering in implications for the future. I have already mentioned the computerized catalog.

At the first annual conference on the junior college library held in Los Angeles last summer, and jointly sponsored by the American Library Association and the American Association of Junior Colleges, we heard an address by Mr. W. C. Bennett of the Precision Instrument Company. Mr. Bennett presented the UNICON Archival Mass Memory System, which is a unique development in the storage and retrieval of information on a new type of recording tape, called unidensity. The process is very similar to the reading of data on punched paper tape, where a hole is punched in the paper to create a "bit" of information, and this "bit" is detected and read by shining light through the hole onto a photocell. However, the Unicon system utilized a polyester tape that has been coated with an opaque layer of a special material. The light of an Argon laser is focused on the tape burning an infinitesimal hole on the surface of the tape. This Unicon system provides the fantastic compaction ratio of 47,500 : 1. That is, data contained on 47,500 average reels of magnetic tape could be written by the laser on one reel of Unicon magnetic tape of equal length. Whereas, Mr. Bennett pointed out that present technology can now produce such compaction of information, he was sorry to state that the precision mechanism required would price the system completely out of existence.

And so the educational prospects of developing retrieval systems are enormous, and even at this point we labor under the staggering challenge these systems will create. We have the information that must be programmed into the machine that will in turn transmit it to the user who needs the material. But we do not want to change just for the sake of change. We cannot look upon information retrieval systems as an innovative gadget which allows us to keep up educationally with the Joneses.

But I leave with you this thought. We must accomplish two things as we face the mechanically precarious future in education.

1. Our system must be comprehensible. We ourselves must understand what we are doing. It must reflect the unity of the function of the system. And it must reflect our organizational pattern, and by the same token that the organization pattern reflect the system.

2. Our system must be humanistic. Webster defines humanism as a "system in which man, his interests and development, are made central and dominant".

I once heard a junior college president say that Plato and Aristotle were probably the first educators with the junior college concept.

That our system be humanistic. What does humanism have to do with the computer? I think if we are successful in the future our system will reflect our concern for the individual--his needs, desires, interests, hopes, ambitions, habits---and all of these in relation to his fellow man. The junior college philosophy is characterized by its concern for the individual. But we can never lose sight of the fact that he does not exist in a vacuum. We cannot expect on the day classes begin to plug him into the computer and two years later, unplug him, and give him his AA degree, fully equipped and prepared to go out into society ready to face reality.

And the great challenge to us in the future as we develop sophisticated systems of information retrieval and automated processes will be if we can establish comprehensible and humanistic approaches to man and machine. And this we will be forced to do as we meet resistance all along the way.

In closing, I would like to paraphrase my original quotation from De Tocqueville. We may go the systems route many times before we even know which direction we are going. But the education of tomorrow will be better than the education of today.

Institutional Research for the Evaluation of the Instructional Program . . . . Seminar Session

Chairman . . . . Elmer J. Kuhn
Dean of Student Services, Sauk Valley College

Panel

Morton S. Shanberg Vice President, Instructional Program, College of DuPage	Henry Moughamian Director of Research and Evaluation, Chicago City College

Henry M. Milander
Dean of Instruction, Belleville Junior College

Recorder . . . . Robert Webb
Vice President, Lake Land College

INSTITUTIONAL RESEARCH FOR THE EVALUATION OF THE INSTRUCTIONAL PROGRAM

Robert Webb, Recorder

The following presentations were given.

Dr. Henry Moughamian gave the following speech.

Current Status of Institutional Research

Even though institutional research has been in existence in American higher education for over 250 years, the scientific study of educational problems is a relatively new phenomenon. It had its inception around the turn of the current century with the works of Cattell and Thorndike. If institutional research can be defined as "any endeavor that leads to the improvement of an institution," then it is not surprising to find a variety of research practices existing in institutions of higher learning. The problems of institutional research are as varied as the educational backgrounds and experiences of the individuals who direct these departments. With only a recent beginning in the academic training and nature of researchers, present positions of directors of institutional research are occupied by individuals with training in areas such as psychology, sociology, statistics, and data processing. Considering these different backgrounds, coupled with the magnitude of problems confronting institutions, ranging from cost analysis to theoretically-oriented research, the diffused state of institutional research today should not be alarming. If it cannot find itself with the aid of current financial support and increasing moral support, the field of institutional research will remain in a confused state.

A primary concern of institutions, especially junior colleges, should be, first, an evaluation of the needs which institutional research can serve, and secondly, the establishment of an office capable of meeting these needs. This type of endeavor should lead to systematic study of institutional problems and, consequently, give an institution a more accurate appraisal of its progress in fulfilling its functions.

Role of Institutional Research

The rationale behind the existence of any educational institution is the promotion of growth in the student. This growth may be manifested by the cognitive, psychomotor or affective domains. The total experiences of the student should be evaluated in attempting to understand this growth. It may be that non-academic experiences will have an equal or greater influence on a student's future than academic experiences. Institutional research can be paramount in determining the relative contribution of such factors.

The role of institutional research in evaluating the instructional program begins prior to the actual classroom setting. Before a student is accepted by an institution, a determination has to be made as to whether he has a reasonable chance of being successful in one of its regular programs. Institutional research can help make this determination. This is evidenced by the voluminous literature on placement and prediction. In the classroom, institutional research can give valuable assistance in determining the relative effects on achievement of variables such as the teacher, methods of instruction, various learning experiences, class size, materials, testing, etc. Research in these areas has been scarce in junior colleges. Good measurement necessitates not only good measuring devices but clearly stated objectives. Research plays an important role in assessing the attainment of these objectives.

The construction and validation of achievement examinations can be most valuable in measuring the effectiveness of instruction. Once objectives are stated in behavioral terms, attainment of these objectives can be measured not only by tests but by other measuring devices as well. Expressing achievement in qualitative terms can be useful in evaluating growth as well as in furnishing local norms for comparative purposes. There cannot be accurate prediction without reliable criterion measures. The implication for institutional research is clearly evident.

Valid measurement devices are indispensable to institutional research. Does the test representatively sample the stated objectives, or, in other words, does it have content validity? Does the test predict validity; i.e., does it accurately place students in various programs? Or if a test of creativity is developed, how does the new test relate to known measures of creativity, or, does it have concurrent validity? Depending on the specific purpose of a test, survey instrument, attitudinal measure, etc., the above are some of the considerations in constructing a measuring device. Without the use of measurement in institutional research, many of our qualitative judgments will continue to be subjective, and, consequently, suspect.

Criteria for Assessment

The most frequent use of evaluation is to appraise the achievement of students. A second use is for diagnostic purposes involving an individual or an entire class for instructional purposes. A third use is to appraise a program or part of a program. Before any of these appraisals can be made, the appropriate objectives or functions must be defined.

In evaluating the programs of a junior college, the various programs have to be identified and defined. What is adult education, and what are its objectives? If an institution has a program for disadvantaged students, what are the goals? These goals may be immediate, short-term, or long-range goals. If institutional research has fulfilled its role in helping to maximize learning during a course or sequence of courses, it can be of additional help in evaluating a particular program by establishing criteria and evaluating the program in light of these criteria. In education we make the assumption that transfer of learning takes place. How much is transferred to out-of-school situations? These measures are often very difficult to make, but systematic research can be valuable in informing an institution as to how successfully it is discharging its functions.

What are some of the criteria that a junior college can use to evaluate its transfer program? What criteria are presently being used? The following list suggests criteria that can be used in evaluating its transfer program:

1. Number of students in the program. Also number served who could not have gained admission to another senior institution.

2. Program and course retention.

3. Academic performance and standardized tests.

4. Number of students receiving the A.A. degree.

5. For those non-graduates and graduates who do not pursue further education, how valuable were college experiences in the areas of work, personal relations, extra-curricular activities, citizenship, etc. It was found that 2/3 of these experiences were in areas not related to college programs.

6. Number of students successfully completing various programs with low ability.

7. Academic performance upon transfer (graduates and non-graduates) - also in comparison with native students.

8. Realistic curricula choices - relation to senior college choices. Is the relationship between ability and goal setting?

9. Retention in senior college.

10. Graduation from senior college.

11. Prominence after graduation.

12. Number of active alumni.

13. Student evaluation (graduates and non-graduates).

14. Senior institution evaluation.

15. Outside evaluation.

Even though all of these criteria are not equally important, the answers to only some of them could give an institution valuable insight. Institutional research should play the major role in seeking these answers in the transfer program as well as in other programs. Most of the above criteria together with a few additional ones could be equally effective in evaluating vocational programs.

Since proper evaluation is the first step to improved programs, institutions should not be hesitant in seeking these answers. The success of an institution is relative. Even if the average retention in a particular course has been 55%, an effort to improve resulting in a 60% retention could be significant, especially if the trend continues. Junior colleges should not be disheartened at their historically small number of graduates, but should seek the underlying reasons and take action. In spite of their few graduates, junior colleges' contributions to society have been numerous. With the aid of institutional research these contributions could be better understood.

Evaluative Procedures of the Chicago City College

The Chicago City College has had an examinations office since 1935. Under the direction of Dr. Max Engelhart, the achievement final examinations in the general courses and English gained national recognition. Since the beginning of TV College in 1956, Dr. Engelhart and his staff have given similar support in the construction of TV midterm and final examinations. Controlled experimentation has also been conducted to determine the effectiveness of educational television.

In September, 1966, the responsibilities of this office were broadened to include institutional research. Currently, offices of research and evaluation are being established in the various campuses of the Chicago City College. Some of the activities of the Office of Research and Evaluation in relation to the evaluation of the instructional program are:

1. Surveys of student characteristics. Knowledge of characteristics such as previous academic success, goals, and ability have prime significance for the initiation of new programs.

2. Coordination of efforts in the construction of examinations. As has been the practice in the past, the Office of Research and Evaluation gives its help in the development of examinations designed to measure course objectives. In order to aid the maintenance of standards and comparability of grades, interbranch common examinations are given in English, biology, and physical science. Faculty of the various Chicago City Colleges meet and in view of stated course objectives prepare examination items. A similar procedure is utilized with TV teachers.

3. Analysis of examinations. Item analyses are provided for any individual or department in the college requesting them. These analyses provide valuable information pertaining to attainment of course objectives such as knowledge, comprehension, analysis, etc.

4. Construction of proficiency examinations. With knowledge of characteristics of successful and non-successful students in various courses, proficiency examinations have been constructed to provide for individual differences. On the basis of these scores and ACT results, students are placed in various courses requiring different levels of ability. Reliable criterion measures are most important in the construction of placement exam-

inations. Otherwise the most accurate possible prediction will never be realized. The role of institutional research in determining valid predictors for various occupational programs is a current need, and with the development of these programs, the need will be even more acute.

5. Studies of withdrawing students and students placed on probation or excluded. Even though this research has not been as intensive as it should be, studies have been made of students falling in these categories. Improved counseling can provide invaluable service by incorporating the results of institutional research in providing academic and personal counseling.

6. Follow-up studies. The Chicago City College has conducted various follow-up studies, including graduates and non-graduates. The primary purpose of these studies has been to evaluate its services as provided by the various programs. This includes not only those students seeking further education, but noncontinuing students as well. Did the student's CCC education prepare him adequately for senior college? Did he acquire marketable skills? Were skills upgraded in an in-service program? After leaving CCC, did a CCC education motivate the student to continue his education even though not seeking a four-year degree? These are some of the answers sought by follow-up studies. In a recent study of ability scores of 1967 CCC graduates, approximately 40% had scores that would have kept them from being accepted by public senior institutions in the Chicago Area. The CCC feels that it has given these students a new opportunity.

7. Standardized achievement examinations. Various CCC campuses have been utilizing these tests as pre-test and post-test measures of achievement. This method has been widely used to evaluate the effectiveness of the "basic" program. Research and evaluation can play an important role in determining the merits of various instruments and in interpretation of the results.

8. Controlled experimentation. Many descriptive studies have been made in the junior college but relatively few experiments have been conducted. The Office of Research and Evaluation has aided in the design of TV College experiments and in analyzing the results for TV College. These studies have analyzed methods of teaching, the effects of age on achievement, the use of programmed materials and programmed evaluation in relation to learning. These experiments have been useful in evaluating the effectiveness of the TV program. In the future it is hoped that similar experimentation will take place in regular courses and programs. Similar experimentation is in progress in "Project Success," a program for "disadvantaged" students.

9. Creation of data files. The CCC is in the process of utilizing the services of data processing in building student and faculty data files. The value of the student file in providing information for counseling purposes, and, in particular, for longitudinal studies, should enhance the position of institutional research. Even though the development of adequate files is a time-consuming project, the information provided to the institution should make the effort well worthwhile.

Dr. Henry M. Milander gave the following speech.

Institutional Research--A Non-Statistical Example

Most self-studies conducted by junior colleges are generally regarded as institutional research. Such studies may be part and parcel of long range institutional planning or be concerned with issues which have current application. Researchers openly question the level of sophistication of some institutional research as it is being conducted in higher education, yet none speculate on its importance in evaluation of the instructional program. To disregard a continuing evaluation of the instructional program would be foolhardy for any educational institution, for evaluation tells you three things: (1) where you have been, (2) where you are now, and (3) possible future directions.

Due to time limitations imposed upon each panel member, an attempt will be made to cite one example of institutional research which was and is being carried on by Junior College District #522, Belleville. The example involves a developing Aviation Technology-Pilot Training Program. An example of "tight research design" it is not, but it is the type of research which suggests to the college that the needs of some of its students, the region, the state, and the nation are being served.

Approximately three summers ago, a request by a group of interested individuals from the district indicated the original need for a "course" in aviation. College personnel surveyed the community and determined that this request was well-founded and that there were a number of potentially interested persons willing to enroll in such a "course." Based upon this need, a non-credit Aviation Ground School Course was offered as a community service for the district. The services of a Federal Aviation Agency qualified master's degree instructor was secured. Each succeeding summer and sometimes in the regular school year, Evening Division Aviation Ground School Courses were offered with enrollments adequate to justify their inclusion in the school schedule of college courses.

With each succeeding year it appeared that something more in the way of an aviation program was required to meet the needs and interests of persons in the district. All the major and minor airlines in the United States were contacted to determine whether students graduating from a junior college aviation program could be placed for employment. An overwhelming response indicated that the airlines would be prospective employers. It was found that all the major airlines require two years of college education, while some of the minor airlines require only a high school education. In addition, commercial enterprises were contacted to determine their needs. Once again responses indicated a need for pilots, for executives, flying sales representatives, and the like.

Based upon the recognized needs of persons in the district, the airlines, and commercial enterprises, and aviation Coordinator was employed to develop a two-year Aviation Technology-Pilot Training Program with the aid of an advisory committee. This program was designed for technical education and training of professional pilots which would lead to a Federal Aviation Agency Private Pilot Certificate, Commercial Pilot Certificate, Flight Instructor Certificate, Multi-Engine Rating, and Instrument Rating. An Associate of Applied Science Degree would be awarded to persons completing the program.

Prior to making the program operational, however, certain facilities and equipment had to be secured. Fortunately for the College, an interested fixed-base operator offered the use of facilities and certain equipment to the college should such a program be established. The offer was accepted by the college, and Parks Bi-State Airport and St. Louis Downtown Airpark, both incidentally located outside the district, are presently functioning as training centers for aviation and related courses. Other required courses in the program are offered on the college campus.

Currently the college is offering the first year of its Aviation Technology-Pilot Training Program and looking forward to the inclusion of the second year during the next school term. Without question, one of the outstanding characteristics of this program is the "felt achievement" of the student. For example, the first solo experience carries with it more meaning and significance than all the "A's" a person could possibly receive on a multitude of paper and pencil tests or term papers.

Now the question arises, should institutional research be halted on this Aviation Technology Program because it has been made functionally operational? The answer to this question is an emphatic "NO". Institutional research is the forerunner of effective evaluation, and effective evaluation is a continuing means to an end, that end being the best possible instructional program which the college is capable of providing for its students.

Dr. Elmer Kuhn gave the following speech.

I am going to utilize my time on this panel in the discussion of institutional research in connection with the instructional program, from the students services point of view. The student services, or as it has been called, student personnel services, are supportive to the instructional program. Improvement of instruction can be based only on an accurate assessment of the present status, and this is usually handled through student services. The information gathered regarding the kinds of students we have, the background of the students, the test results of the students, the implications through the guidance and counseling programs, as to students' satisfactions or not meeting needs and also the follow-up of students. It goes without saying that an instructor can teach a group of students and continue teaching without having any information relative to what is going on but it appears to be more likely that an instructor would like to have information regarding not only his program, but whether or not the students are comprehending what he is trying to teach. The evaluation of his own test scores and what the students think of the course as well as the instructor, is also valuable. Having frequent reports available to the instructor, appears to be one form of evaluation. Essentially then, the questions asked are "How are we doing?", "How well are we achieving our objectives?", "What can be done to correct a situation, if it is needed?" Improvement of instruction can be by an accurate assessment of the situation, although it is sometimes quite difficult to obtain accurate data.

Some of the more common types of studies being carried out are those dealing with drop-outs, admissions, cancellations, class scheduling and following up of graduates. A study of drop-outs also can use data from student's high school records, such as interest, aptitude and test scores, previous interests and achievements, environmental statistics such as parents occupation, education and income.

A very necessary type of research which is being performed within the institutional research area is that of projecting enrollments. Factor analysis are important in that the present instructional programs must be studied to see that it can take care of what is projected and also to justify the addition of new programs at the junior college. Projections should take into account, such factors as the influence of the economy of the community, the addition of new types of industries that would affect instruction and also changes within the industrial community that would require deletions and additiona within a curriculum.

The most recent issue of the Junior College Journal has three articles that relate to research in junior colleges. The second of these three articles called "Gaps and Overlaps Institutional Research" by John E. Roueche indicates that institutional research in the community college is a recent phenomenon. Except for a few isolated cases, organized research in the community college was unknown prior to 1950. Mr. Roueche continues by saying that institutional research study of junior college curriculum have focused attention on institutional and departmental curricular programs on status studies of curricular programs of other institutions. On specific programs for low ability students, and on feasibility studies to determine the need for new occupationally oriented curricular programs. He goes on by stating that the Peterson Report which involves the California Junior Colleges, lists the problems in measuring the effectiveness of instruction and recommends evaluation by researching teaching methods, new methodology, textbooks, library materials, special facilities and testing devices to help in the development of guidelines for good teaching.

At this point, let me make some personal comments regarding the usefulness of research and the role played by personnel in the student services area. It is inconceivable for me to understand how any good ongoing instructional program could do without the research and the services that are necessary. The instructional staff must be concerned with the characteristics of the total student body, the characteristics of special groups, such as the very able, the under achiever and the slow learner, the characteristics of students in the individual courses within the curriculum and the characteristics of the individual students themselves who make up the class.

Dr. Morton Shanberg discussed institutional research from the viewpoint of the junior college administrator. He stated that insofar as the instructional program was concerned, the institutional research program served one major function, that of providing needed facts for institutional decision making. Among the types of evaluation needed, Dr. Shanberg emphasized the following:

1. The evaluation of the college course offering. Do they meet community needs?

2. Can students meet their educational objectives?

3. Evaluation of the effectiveness of new technology.

4. Evaluation and analysis of new learning theories.

5. Analysis of the needs of students versus the needs of society.

Dr. Shanberg raised the question of how an institution can be organized to effectively carry out an institutional research program. The first step is to employe an institutional research director. He stated it cannot be assumed that the director can effectively carry out all of the institutional research needed for the programs. New approaches are needed. Computers can be used effectively in most programs. Staff members must be shown the need for institutional research and be involved in carrying out the analysis of the program. Good institutional research will make teachers more effective, identify students about to fail, and help identify weakensses in the college curriculum.

In conclusion, Dr. Shanberg stated that the truce of yesterday become the myths of today. Our nation cannot affect economic waste. Junior colleges must not become static, but must change with society. We must avoid off the cuff decisions and make decisions based upon facts. Institutional research gives us insight on how to meet future needs.

The Role of the Faculty Senate . . . . Seminar Session

Chairman . . . . Clifton J. Woods
President, Faculty Association, Triton College

Panel

Chester Pachucki Dean, Southeast Branch - Chicago City College	Retha J. Mason Member of Faculty, Prairie State College

Seymour P. Golden
President, Board of Education, Black Hawk College

Recorder . . . . Adelaide Childs
Dean of Students, Thornton Junior College

THE ROLE OF THE FACULTY SENATE

Clifton J. Woods

I. The Game

The game or the institution of concern is the Junior College Education or the Junior College. The field can be marked off that is, its layout encompasses and can be described as follows:

A. Environment
B. Instruction
C. Learning - Study

Together these function to accomplish the Institutional Goal.

II. The Institution - The Specific Junior College

The college, the team, is constituted of subgroups as the members or players of the team. They are:

Faculty
Board of Education
Administration
Students

Each has its area of major concern - The Faculty with Instruction, the Board and the Administration with the Environment - physical and economic, whereas the Students are concerned with the Learning and Study. The Students and the Faculty, are in turn subgrouped again into organizations. The Faculty Organization is called commonly the Faculty Senate, Faculty Association, Faculty Council etc. The sub-subgroups concern themselves with the area defined as the Environments.

III. The Environment

This is the least well-defined of the areas of our layout. Beyond the physical facility this requires definition and may be appropriately equated with the chain and its gang - that is so familiar to the football fans. It is within this area that the Faculty Organization finds its role - essentially enabling the psychological being, that is the instructor, to function as a maximally effective instructional instrument. Salary, office space, leadership, for example are parameters with which the Organization must deal. Thus the role of the Organization is variegated and subject to constant change - dynamic and eclectic in nature - defying definition for other than that of the specific institution at some specific period of time.

IV. Definition-Nomenclature of

Since the role which the organizations are designed to assume is subject to constant flux, these organizations at their outset period are given various names appropriate to the dictum - for example:

Faculty Organization - Local or with State and/or National Affiliation
Faculty Senate
Faculty Council
Unions - AFT

The species of an organization is unique and is a function of the institution in which it operates.

V. Panel

To discuss the Role of The Faculty Organization we have represented on this panel:

The Faculty - Mrs. Retha Mason
The Administration - Mr. Pachucki
The Board - Mr. Golden
Faculty Organization - Mr. Clifton J. Woods

VI. The Presentations

A. The presentation by the faculty member of the panel

B. The presentation by the Administration

C. The presentation by the board member of the panel

THE ROLE OF THE FACULTY SENATE

Chester Pachucki

Ladies and Gentlemen:

May I say first that I deem it an honor to have been invited to participate in this conference as a panelist and a particular privilege to have been invited to address this session. Considering recent developments in education generally, the so-called "mood" of teacher militancy, and certain observable trends in the junior college movement, I can think of no single issue more important or more challenging to us than the one to which we address ourselves here today.

Please accept my apologies for deviating somewhat from the announced topic, "The Role of the Faculty Senate", to a discussion of "Faculty Participation", with a focus on the Southeast Campus, Chicago City College. I do so at the request of Dr. Robert Darnes.

My remarks will consist of a discussion of the following items:

A. Some relevant facts providing the necessary context within which one might better understand faculty participation as it exists at the Southeast Campus of Chicago City College.

B. A policy statement officially describing those mechanisms of faculty participation at our campus, most appropriate for presentation here, within the time limits prescribed.

C. A comment as to how they were instituted, and finally

D. Some theoretical considerations of the general question of faculty participation.

First then the context, what the systems theorists refer to as "environmental factors".

1. The Southeast Campus is one of eight campuses constituting the multi-campus Chicago City College system. Obviously, the problems normal to the internal functioning of an organization are compounded by the problems associated with inter-campus, center-branch relationships in a huge college of some 37,000 students.

2. The system is new, in the very real sense of having been divested from the common school system only about a year ago. One must appreciate the problems attendant to birth and the achievement of independance.

3. The system must also learn to cope with, and adjust to a new organ recently incorporated into the body academic - the union, with all of the issues posed by this development.

4. Chicago City College also has an All-City Faculty Council, basically advisory to the Chancellor, which functions in such areas as curriculum, educational policy, and physical facilities, among others.

5. The Southeast Campus has a faculty consisting of some 120 members, in terms of full time equivalents, all of whom are members of the Local Faculty Council.

I have distributed to you materials describing each of the main organs of faculty participation which are, we think, unique to our campus operation, as they appear officially in institutional documents. Very briefly, the Administrative Advisory Council is a body advisory to the dean composed of faculty members and administrators with general jurisdiction over local affairs. It is the highest campus body to which an issue can be appealed. The Budget Committee, composed of faculty members and administrators, advises the dean as to the allocation of local funds in terms of needs of the academic departments. (Local funds are comprised of all fees assessed the student at the time of registration. These funds remain at the local campuses - we have no tuition)

The Program Evaluation Committee, composed of faculty members and administrators, advises the dean as to the allocation of teaching divisions to departments and reviews departmental course offerings in terms of local educational objectives. To avoid any misconceptions may I state clearly that the bodies described here are formally Advisory in nature.

It is worthy of mention, it seems to me, that these committees were organized originally by administrative invitation,....not the products of discord or crisis, these organizations, both in their inception and current operation reflect, in our opinion, a rational approach and constructive attitude toward meeting problems of common concern in the operation of a forward looking educational institution.

I should like to turn now to some considerations, general and theoretical, of what appear to me to be fundamental issues underlying the concept - faculty participation. Obviously the term Faculty Participation is subject to a variety of interpretations and connotations including such things as informal discussion, various types of Faculty Senates, etc. Essentially, however, what we are talking about is faculty power or authority; the power or authority to make and implement binding decisions as to institutional policy. Assuming that traditionally, institutional policy formulation and implementation have been the function and prerogative of administration and that conceivably faculty participation could mean faculty assumption of these rules, then it is theoretically possible that under such circumstances the faculty would have replaced the administration and we might be discussing some sort of "Administrative Participation". Realistically, we are, in fact, discussing the governance or government of our educational institutions. Engaging in such a discussion we enter the province of the political theorist and consequently must examine certain of his concepts relevant to our discussion. I have selected three: democracy, authority, and responsibility.

From a general societal perspective one might quite accurately describe the governing of public education in the United States in the following manner:

Boards of Education, selected ultimately in some manner by the public and thereby legitimately democratic, are entrusted with authority, of which, some is delegated to administrators, who along with their boards are responsible and accountable for policy to those who have selected them. Within this conventional framework faculty demands for decision making power require that authority be granted without the concomitant responsibility, as that term is generally understood. The very real question presents itself as to the nature of faculty responsibility were the faculty to be entrusted with authority. It is not difficult to provide a rationale for faculty participation or authority. It is justifiable on the grounds of professional competence expertise, on the psychological premise that good teaching might better be assured were teachers involved in determining and identified with, the policies so directly affecting them; and on the basis of self interest, equity demanding that those affected by policy be a party to its determination.

On the other hand, I recall reading and interesting conclusion in an article in the Junior College Journal citing research findings to the effect that decisions or policy implementation were none the better when faculty did participate.

In the final analysis faculty participation will become faculty authority when and if those presently in command, namely the boards of education and the public, are persuaded, in one way or another, to relinquish or delegate to the faculty that which they now control. Thank you.

Acknowledgement

This paper was prepared in consultation with Mr. Howard Gordon, Director of Academic Programs, Southeast Campus, Chicago City College - former president of Southeast Faculty Council - Chairman of the Local Cook County College Teachers Union Grievance Committee - Member of the All-City Grievance Committee - and Charter Member of the Southeast Administrative Advisory Council.

(Editor: The following paper was distributed to those in attendance).

ORGANIZATIONAL STRUCTURE

The characteristic feature of the Organizational structure at Southeast is the significant contribution of the faculty in policy making. Along with the usual administrative "line-staff" and typical faculty committees -- Rank, Faculty Council, etc. -- this campus has incorporated uniquely, several innovations that will assure constructive faculty participation. Of particular significance is the role of the advisory-consultative function of the Administrative Advisory Council, Program Evaluation Committee, and Budget Committee (Local Funds).

Administrative Advisory Council

The Administrative Advisory Council of the Southeast Campus, Chicago City College, will consist of five members: The Dean of the Campus, who will act as chairman, two faculty members chosen by the local faculty council, and two members appointed by the local administration. All members will serve for one year.

As indicated by its title, the purpose of the Council will be to assist the dean in an advisory (consultative) capacity with regard to overall campus administration. The council will also provide an institutionalized means whereby the faculty and administration jointly will be afforded the opportunity to discuss and resolve common problems.

The Council will meet at a regularly prescribed time, and meetings will be open to the entire faculty. Any member of the council will have the privilege of placing items on the agenda.

Council business including resolutions, pertinent discussion, agenda, etc., will be communicated to the faculty after each meeting (whenever possible) in the "Newsletter," the official publication of the Council. This Newsletter will be prepared by members of the council who will serve as Acting Secretaries on a rotating basis.

At his discretion, the Dean shall submit to the Administrative Advisory Council for consultation, deliberation, and recommendation all those issues-- legal, professional, and otherwise -- which devolve upon the dean by virtue of his office, and all those decisions to which the dean shall be a party by virtue of his position. The Administrative Advisory Council will be the highest appellate body of the Southeast Campus to which an issue may be submitted for resolution in those areas over which the dean has jurisdiction.

Decisions of any group, committee, council, etc. advisory to the dean, may be submitted for discussion to the Administrative Advisory Council either by the dean or a council member.

Program Evaluation Committee

This committee consists of five members: three selected from the faculty and two from the administration. Two faculty members are elected by the faculty to this committee and the third member is appointed by the administration. The Dean of Instruction serves as chairman of the committee. The duty of the committee is to advise the Dean of the Campus on the following:

1. Allocation of teaching divisions to individual departments,

2. Review of class schedules in relation to the curricular offerings of the college, ability of the students, and their needs.

3. Review of class offerings and recommendations for changes while registration is in progress.

Budget Committee

The Budget Committee is to advise the Dean of the Campus on the allocation of local funds among the departments, and to aid in the preparation of the annual board budget as it pertains to "special accounts".

The Budget Committee consists of three members: two from the faculty and one from the administration. The local faculty council nominates three faculty members other than department chairmen as candidates to this committee, of which two are selected by the administration. The Dean of Instruction serves as the chairman of the committee. The term of appointment for representatives of the faculty on this committee is two years.

The operation of the committee is as follows:

1. For local fund allocations an open meeting is held to which all faculty are invited to present evidence. The Budget Committee hears departmental budget requests and allocates available local funds, subject to the Dean's approval. The criteria for designation of priority in granting budget requests is the concurrence of the particular item or service requested by the department with the general objectives and needs of the college.

2. The chairmen of the departments are requested to list their needs as to supplies, equipment, and travel for the coming calendar year. The committee collates and reviews their requisitions prior to submission of said requests to the Dean.

Faculty Rank Committee

The Faculty Rank Committee is convened yearly for the purpose of making recommendations for promotion in rank of faculty members. It has been composed of six members elected by the Faculty Council, though the Dean of the Campus, at his discretion, can limit the Faculty Council to providing three of the members of the committee, and can appoint three members himself. At the invitation of the committee the Dean may sit as a deliberating or silent member of the committee.

Recommendations are made on the basis of published criteria supplied to the committee. In their deliberations the committee has access to personnel records and recommendations submitted by individual faculty members and department chairmen, as well as their own knowledge of their colleagues.

The committee recommends to the Dean who in turn recommends to the Chancellor. The Chancellor presents his recommendations to the Board.

THE ROLE OF THE FACULTY SENATE IN COMMUNITY COLLEGE ORGANIZATION

Retha J. Mason

While junior colleges are dedicated to the communication of knowledge, public service, and research, the major emphasis of the function of the junior college is on the first two.

What role can the faculty senate play in achieving the goals of the institution?

What role should the faculty senate play?

Committee T of the AAUP in a report to the Association ennunciated the following principles for faculty participation in governance: (AAUP 51-1965)

1. There ought to be a close understanding between the faculty and the board of trustees and to this end agencies other than the president are required for joint conference between the two bodies.

2. The general faculty should participate with the trustees in the nomination of a president, and the faculty of a school or division should have a voice in selecting the dean who presides over that school.

3. Administrative officers should have the advice of representative faculty committees in matters of educational policy, and specifically in matters of teaching appointments, promotions, and dismissals, and in making budgets.

4. The faculty of the university at large or its authorized representatives, and the faculty of each college in the university should have ultimate legislative power over educational policies within the furisdiction of that faculty, and should control its own organization and its committees.

5. The departments of instruction, however organized, should be consultative bodies and should exercise what is in effect a collective authority over teaching and research under their jurisdiction.

Additional comment in the report: "The one thought I would like to emphasize is the urgent and critical need for a universally recognized partnership by all organizations and individuals involved in higher education. For AAUP this means at its grass roots a general awareness and understanding of the problems of higher education, and a willingness to assume some responsibility for the solution of these problems and a high degree of cooperation with administration."

The American Association of Higher Education has published a paperback Faculty Participation in Academic Governance (1967) which identifies five levels of relationships between faculties and administrative bodies which have been observed in studies made of a variety of institutions including twelve junior colleges.

1. Administrative Dominance

2. Administrative Primacy

3. Shared Authority

4. Faculty Primacy

5. Faculty Dominance

They believe the ideal goal is shared authority.

The final proving ground of good administration or good organization is in the classroom. The crucial element here is the teacher and his belief that his role is a critical one. He has a vested interest. The nature of his work depends on his attitudes. He must have a way of communicating his ideas to where it counts, and he must feel it really counts. If he can't he will lose interest and find other outlets for personal satisfaction. Whatever system of organization is used, it must recognize the importance of the role of the faculty member and provide him with a status of dignity and consideration. Millett in "The Academic Community" suggests that the faculty member resents any suggestion that his relation with a dean, a vice president for academic affairs, or a president involves supervisory authority of any kind. He further suggests that this kind of relationship will not be long tolerated in any college of intellectual quality.

The key to faculty government is this: it has to be patently clear that the teacher can see his thinking reflected in the deliberations of the senate or council (whatever it is called) and in the response from the administration. It is of paramount importance that faculty members, however organized into departments, exercise full control over the curriculum and courses in their purview of their department. The senate acts on matters that affect faculties from more than one department and those which affect the whole school. The senate should be authorized to consider any subject pertaining to the interest of the junior college as a whole. There has to be a partnership between faculty and administration. As suggested by the Task Force in the AAHE paperback on faculty governance mentioned above, the ideal to strive for is #3, Shared Authority.

When the faculty begins to feel that administration is forcing its ideas on them, it freezes into a power block. When the administration feels that the faculty is forcing its ideas on them, they freeze into a power block. The Board likewise can be frozen into a power block. Corson refers to differing concerns with higher education: ie., faculty, board members, and administrators are each concerned with different aspects of the organization of the junior college. Sometimes administrators try to skirt this problem by "loading" faculty committees with persons who will represent the administrative policy or use other methods of getting around faculty opinion. The result is a junior college illness. The students, unfortunately, are caught in between these blocks of power.

Whether you believe in unions or not, the strongest unions are built out of tensions between faculty and administration and the board. The union is an external organization and by definition, has its own goals. Walter Reuther's goals and his union's goals ultimately are for continuous recognizable gains for his union. These goals, by definition, are in opposition to the administration. Some people think that the reason why teachers' unions were able to sustain a strike is because the teachers felt that they did not have an effective voice through the internal organization, the faculty government.

If administrators and boards do not wish to deal with the pressures that can be exerted by an external organization, they will help the internal organization to have a strong voice in the governance of their institutions. I do not believe that teachers really want unionism in the junior colleges if problems can be solved without them.

I am not suggesting a specific organizational chart or formula. I am suggesting that what is needed is genuine shared authority--a partnership--in which each of the questions raised are studied in terms of the dynamics of each institution's operation. That in this partnership, the faculty is made to feel that its voice really counts--each individual faculty member must have a proprietary interest in the goal of his institution. If this is a reality, the problem of faculty apathy should disappear.

The concluding sentence from the book, Faculty Participation in Academic Governance, deserves quoting here. This excellent little book should be purchased in quantity by every board in the state and distributed to every member of their staff. They say: "The pattern of campus governance that prevails in the future will be determined by the measures taken by governing boards and administrators to deal with faculty aspirations now."

Ultimately, the success or failure of the partnership between administration, faculty, and boards will depend on the good faith in which they deal and the amount of faith, trust, and respect they bear for each other.

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THE ROLE OF THE FACULTY SENATE

Seymour P. Golden

One of the most important duties of the Junior College Board is to provide the most qualified faculty obtainable. Only by so doing can the major purpose for which the college has been organized be fulfilled.

In order to keep the faculty interested, enthusiastic and effective, we must know what they are thinking about academic matters. The lines of communication must be kept open. This, briefly, is the role of the Faculty Senate.

At Black Hawk, the Faculty Senate is one of our more important committees. There are approximately fifteen or sixteen members, each representing an academic department of the college. The officers elected by the Senate are a chairman, a vice-chairman and a secretary.

The stated purpose of the group is to:

1. Provide the President of Black Hawk College with a representative teaching faculty body that can assist him in any matter affecting the welfare of the college.

2. Provide the administration with a democratic means of ascertaining the problems, convictions, and suggestions of the teaching faculty.

3. Promote communication and mutual understanding within the teaching faculty and with other groups having to do with the welfare and growth of the college.

Regular meetings are held each month. Special meetings may be called at the request of the chairman.

As indicated, the Senate is related to the Administration. The Administration is in turn charged with furnishing to the Board guidelines and recommendations for policy decisions.

Our Faculty Senate is presently discussing several important subjects. Many of these are handled by sub-committees who meet with our Vice-President for Academic Affairs. Among the areas being covered are:

1. Tenure
A several page draft of a proposed tenure policy has been prepared for discussion.

2. School Calendar
A revision to the school calendar was recently adopted on recommendation of the Administration.

3. Sabbatical Leave
A several page draft of a proposed policy in this area has also been prepared for discussion.

4. Parking
Parking has been a problem for our main campus operating in six buildings located in four different cities.

5. Academic Rank
A proposed rank and promotion policy has also been reduced to writing for the purposes of discussion.

6. Salary and Fringe Benefits
Salary and fringe benefits are being discussed so that ideas may be communicated to a continuing Board committee responsible for this important area. The subject of summer school pay is being included.

7. Space and Equipment
Space and equipment requirements are being studied for our present cramped quarters at several locations on two campuses as well as for our new main campus now under construction.

As can be readily seen, the Faculty Senate at Black Hawk College is deeply involved in providing ideas and suggestions which serve as background information for the Administration in forwarding studied and workable recommendations to the Board for its action in matters relating to the faculty. Most of this is presented to the Board in informative, written reports which are mailed to members prior to board meetings. Final decision and policy making is left with the Board to whom the voters have entrusted this responsibility.

SUMMARY

Adelaide Childs

Mr. Woods introduced the members of the panel. In his introduction to the topic, "The Role of the Faculty Senate," he stated that in education there are three fields of interest: (1) environment, (2) instruction, and (3) learning and study. Environment is the field of interest of the board and the administration; instruction is the field of the faculty, and learning and study that of the student. A senate's interest is the personal environment of the faculty member so that he can function well. Names vary, faculty council, faculty senate, union, etc.

Mrs. Mason, the first member of the panel to speak, stressed the need of having a closer relationship between faculty and administration - a genine shared authority - a partnership. "The faculty should be made to feel that its voice really counts--each faculty member must have a proprietary interest in the goals of his institution." She concluded by saying, "Ultimtely, the success or failure of the partnership between administration, faculty, and board will depend on the good faith in which they deal and the amount of faith, trust, and respect they bear for each other."

Mr. Pachucki, the second speaker, said that he, at the request of Dr. Robert Darnes, would talk about "Faculty Participation: rather than "The Role of the Faculty Senate." He handed to audience members a data sheet on the committee organizational structure at Chicago Southeast Campus. He emphasized the fact that decisions of any group, committee, council, etc. are advisory in nature; that committees were originally formed by administrative invitation and were not products of discord or crises. They represent, he said, "a rational approach and a constructive attitude toward meeting problems of common concern in the operation of a forward looking institution."

Mr. Pachucki observed that "faculty participation" might mean such a thing as informal discussion, but that essentially it means "faculty power or authority; the power or authority to make and to implement higher decisions as to institutional policy"; and he questioned the nature of faculty responsibility were faculty to be entrusted with authority such as boards and administration have. He concluded that "in the final analysis, faculty participation will become faculty authority when and if those presently in command, namely boards of education and the public, are persuaded, in one way or another, to relinquish or delegate to the faculty that which they now control."

Mr. Seymour P. Golden, the third panelist, said that the faculty senate is a line of communication between faculty and administration and administration and board. He named some areas that the senate at Black Hawk was considering: (1) tenure, (2) school calendar, (3) sabbatical leave, and (4) parking facilities.

The faculty senate provides "ideas and suggestions--which serve as background information for the administration in forwarding studied and workable recommendations to the Board for its action in matters relating to the faculty....Final decision and policy making is left with the Board to whom the voters have entrusted this responsibility."

A question and discussion period followed with the following questions being raised and the following answers made:

Question: Should faculty associations work toward affiliation with a state or national group?

Answer: Mr. Wood - believes in no affiliation becuase affiliation means alignment with policies of the other group.

Mrs.Mason - believes in internal organization; feels there is need for an atmosphere for learning and that this atmosphere can be created by administration and board.

Mr. Pachucki - feels other associations will creep in.

Mr. Golden - feels AAUP helps in communication at Black Hawk.

Question:
1. How is the faculty senate chosen?
2. How often reelcted?
3. How is communication kept open between faculty senate and faculty?

Answer: Mr. Golden - 1,2. Various departments elect membership every two years - 1/2 of members new. 3. Department heads meet with board. Dean of Academic Affairs also keeps line of communication open.

Mrs. Mason - feels every faculty member should be a member. If have representatives, however, representation should be carefully worked out so that it is a true one.

From audience - At Chicago Southeast all members are elected at large - no power sturcture for large department.

Question: Does faculty senate have any power over curriculum?

Answer: Mr. Golden - At Black Hawk curriculum changes go through curriculum committee.

From audience - At Southeast may bring curriculum change to faculty senate -- chain of command in curriculum change at Southeast.

Question: Who should be members of Faculty Association?

Answer: Mrs. Mason - feels that to have administration and faculty members meeting together would be confusing the issue.

Mr. Pachucki - feels it would be difficult to have all groups meet together.

In conclusion, Mr. Wood said "It is a management tenet that all individuals have various roles. It is up to each individual to make his role work."

Role of the Junior College in Adult Education . . . . . .Seminar Session

Chairman. . . . . .William D. Masters
Director of Vocational-Technical and Adult Education,
Carl Sandburg College

Speaker . . . . .Stanley C. Robinson
Dean of Division of Extension, University of Illinois

Reactors

Elden A. Lichty Professor of Education, Illinois State University	Phillip R. Walker Assistant Dean for Continuing Education, Parkland College

Recorder. . . . . .Mrs. Vera C. Laughlin
Dean, Wabash Valley College

ROLE OF THE JUNIOR COLLEGE IN ADULT EDUCATION

Mrs. Vera C. Laughlin

Dr. Robinson addressed the group as fellow workers in Adult Education. Following is a summary of his address:

Adult Education is a new development and consequently is not in the straight jacket of the disciplines. We can experiment, look at results and, if necessary, back up and try again. The path to wisdom is easy to express. It is err, and err, and err; but less, and less, and less.

The junior college is a senior citizen in education, but an adolescent in higher education in Illinois. The first junior college in Illinois opened at Joliet in 1902. By 1960 the junior college movement had caught fire and with increasing public interest and support it has mushroomed in Illinois.

The recent addition of the junior college into the higher educational system provokes concern. How should the junior college fit into the vocational, technical, and adult education structures of local communities? The concept of adult education is not new. Socrates and the bards and troubadors of the middle ages served the cause of adult education. However, through recent centuries, education was for the young. When young people graduated, they stayed graduated. They had finished their education. Man's ability to learn was believed to diminish after his 21st birthday.

But in the 1950's we found ourselves engulfed in a great upheaval as momentous as the Industrial Revolution. We did not call this a revolution but rather an explosion, or a cluster of explosions. We have the population explosion, the knowledge explosion, behavioral explosion, cultural explosion, communication explosion, and more. The knowledge explosion is our concern today. In all fields of endeavor man realizes the necessity of keeping abreast of new knowledge. "Knowledge does not keep any better than fish," according to the late Paul McGee. Thomas D. Bailey, Florida State Superintendent of Public Instruction, calls this "an age in which people will not live their lives in the world into which they were born, nor will they die in the world in which they matured!"

Adult education is sought by older people in order to keep abreast of knowledge, to perform their current jobs or careers more skillfully, to be ready for better jobs, to meet social responsibilities and to pursue intellectual and cultural interests. In general, two principal patterns are being followed:

1. provisions for adults to complete requirements for conventional degree

2. development of non-credit courses designed to help citizens acquire new knowledge

This is the big challenge for junior colleges.

In Illinois the junior colleges have a mandate to devote not less than 15% of its state support for operation of vocational, technical, and adult education. In carrying out this mandate, will the junior colleges encroach upon other institutions, or will they cooperzte in the overall task which confronts us all? The Dimensional Chart suggests appropriate program balance on the operational level. Our concern is, "How should the junior college adult education program relate to other educational institutions and related agencies in the community and in the state?" There should be no room for jealousy. There is more work than all can do even operating at the top of our efficiency and using all resources. We must work in harmony. The University of Illinois recognizes this concern and does not conduct programs that can be performed by other agencies within the community. The junior college should focus its services on unmet needs in the community that are concurrent with its goal. The college cannot and should not attempt to meet all needs. It should recognize other organizations that can meet certain needs and encourage them so there can be cooperation.

Establishment and utilization of lay-citizen advisory committees should be used to assist in planning programs for adults and other part-time students in junior colleges. What will comprise these programs? Some programs will probably be common to most of the colleges. These will include elementary and intermediate courses in business, English, public speaking, agriculture, home economics, etc. Other schools, assuming they are alert and civic minded, will offer such courses as community planning, human relations, psychology of group work, and conservation. As the communities differ, so will the offerings.

One problem faced in the discussion of junior colleges in the field of education is the confusion in communication because of definition of terms. I am submitting some definitions for our use in this Seminar.

Basic Adult Education is that phase of the educational process that tries to assist adults whose educational and social achievements have been comparatively low to become functionally literate.

Adult Education is a broad term encompassing various educational programs which encourage and provide opportunities for adults to extend their mental and informational achievements after their formal schooling has been terminated.

Continuing Education is a phase of the total educational process through which an individual keeps abreast of new knowledge and developments as well as the updating of old knowledge and theories.

University Extension is (1) the education of adults on the college level--undergraduate and graduate, credit or noncredit; and/or (2) education on any levels which demand that kind of expertise which may be found among the faculty of a comprehensive university.

Community Services comprise a variety of programs and activities directed toward improvement of a community, with the major recipient being the community.

Referring to the Dimension Chart, one is reminded that appropriate situations must be made from the major areas listed. A survey of the community needs should reveal the neglected areas and an attempt should be made to find the best possible solution to satisfying these needs. Programs needed are often difficult to develop, staff and conduct, and will require skill, ingenuity and patience. Manual and mental skills are not too difficult to develop, but changing opinions and attitudes come slow.

The adult education phase of the college's overall program should not be expected to support itself. Adults should not be expected to pay high tuition. The program should not be expected to produce earnings exceeding 50% of its total budget; less is preferable. At the same time, the faculty should not be required to subsidize the program through acceptance of meager stipends. The programs offered should not be confined to credit work. Some of the newest and highest level work conducted by the University of Illinois Division of Extension is non-credit.

The junior colleges should be aware of possible pitfalls or "booby traps" in administering adult and continuing education programs.

1. Attempting to satisfy all of your district's many and varied needs solely with your own resources.

2. Developing conflicts with the administrators of prevailing adult, continuing education, and university extension programs.

3. Placing disproportionate emphasis on credit classes because they are "respectable."

4. Concentrating resources on programs solely because they have been tried by other institutions and have been proven successful in their localities and for their purposes.

5. Refraining from grappling with the significant and complex needs of the inner city--or even the inner district--because they are nebulous and tough.

6. Attempting to proceed on the basis of experience acquired by other institutions.

7. Overlooking the fact that the majority if not all of the State's universities--public and private--are interested in education for all, and will be pleased to work with you by complementing and supplementing your efforts to the limits of their available resources.

We have a big problem to assist the neglected area of our citizenship. These people are discouraged and we have but a few years to correct some of their attitudes and supply their needs. Leadership and innovation are needed, and the junior colleges can be instrumental in providing them.

Thomas Kennelly of the American School, defines leadership as being that quality which comprises "Risk- plus Initiative- plus Ambition- plus a spark of divine Madness."

Do we, who propose to lead, and provide opportunity to adults in their pursuit of learning, meet Mr. Kennelly's standard of leadership?

Dr. Masters called upon Mr. Lichty for his reaction. Following is a summary of his statement:

"It is a pleasure to react to something we can wholeheartedly agree with, and I do that.

My experience in junior colleges began in 1939. A junior college has been defined as an institution offering not more than two years of strictly collegiate education. I feel I have worked in higher education. It does not have to be separated from the high school to be higher education. Much of adult education is not thought of as being higher education.

In 1958 the Association of Junior Colleges met in Grand Rapids, Michigan. At this time it was said that Michigan had the first public junior college. It is true that one was established in Michigan in 1896, and it lasted two years. In the spring of 1901 a junior college was authorized to be established at Joliet, Illinois. Classes were begun in September, 1901. In 1951 Joliet Junior College celebrated its 50th birthday.

Dr. Robinson gave us much food for thought. He gave us reasons as to why junior colleges must be interested in adult education. The junior college has shown much growth and development in the last few years with emphasis on vocational and adult education. We are in a strategic position to have a place in these developments. It will require the cooperative effort of all agencies and educational institutions. At the same time, I caution you that we must not try to do everything.

In 1951, Medsker said, "We claim a lot for junior colleges. Let's prove it." We claim we can do a lot for adult education. Let's prove it, but let us not spread ourselves too thinly so that we cannot do a good job."

Mr. Walker, the second reactor, indicated that he wanted to react to only a small portion of Dr. Robinson's address- a portion so important to all Americans at this time. This is the junior college's role in dealing with the problem of American cities. Following is a summary of his statement:

"We must begin to deal effectively with the problems as we study and look for causes of the urban rebellions of the past summer. We miss the mark if we allow the community colleges to look the other way. If we want to be helping agents, we must be sure of our motives. We may want to help the poor and we may want to change the power chain so they can help themselves. These are very different. The first is the aristocratic assumption that we must care for those in need, 'noblesse oblige.' The second represents the democratic, Judeo-Christian idealism and brings every person to his highest, fullest development. We must reassure ourselves that our adult programs are re-creative, not ameliorative. We can provide a change in our society and adult needs are immediate and critical.

The junior college is not only an institution for an academic program, but also an institution to take care of community needs. We need to reclaim adults in our urban areas. These needs are at two levels; 1) need arising from lack of funds, 2) need arising from inadequacy of previous training. Understanding massive urban needs is a priority in the work of our junior colleges."

Dr. Masters thanked the reactors and asked for questions or remarks from the audience.

Question: We are aware of explosive needs in our communities. Should we duplicate services since we have resources for doing the job that might serve in a better and different way? Can we not cooperate but still seemingly duplicate programs? I teach the same course at Northwestern, University of Illinois Extension, and a junior college. It this duplication of effort?

Answer by Mr. Robinson: This comes back to a matter of definition. I doubt if there is a duplication. Descriptions that are apparently the same do not necessarily mean duplication. The same course offered for different people at different times does not imply duplication of effort.

Question: In the continuing education program of our junior colleges, the retraining of skills is not receiving same recognition as the academic program. Will the universities train or recognize persons for teaching these skills? Are we locked into a system that does not provide a place for non-degree faculty?

Answer by Mr. Robinson: Universities will probably cooperate. Vocational people must fight for these programs and should get support in the community.

Answer by Mr. Walker: The faculty in such instances were not properly orientated in junior college concepts. He believes there are colleges where this is not true and qualified non-degree people are used.

Student Government on the Junior College Campus . . . . Seminar Session

Chairman . . . . Donald Richardson
Board Member, Highland Community College

Panel

Charles Thompson
Dean of Men,
Danville Junior College

David McGee
President of Student Senate,
Danville Junior College

Lewis Dobbs
Chairman of Social Science
Department and Advisor of
College Council,
Kaskaskia College

Ronald Owens
President of College Council,
Kaskaskia College

Howard O. Armstrong
Assistant Dean of Student Activities,
Wright Branch - Chicago City College

H. Lindsay Roark
President, Wright Branch Student
Governing Body, Chicago City College

Recorder . . . . Donald F. Mortvedt
Dean of Students, Canton Community College

STUDENT GOVERNMENT ON THE JUNIOR COLLEGE CAMPUS

Donald F. Mortvedt, Recorder

In general, the panel discussed the major functions of the student senate on their respective campuses. This entailed a description of how the elections actually take place, the purpose of having a student senate, the "ideal role" and "real role" of a student senate and how it relates to learning and the enhancement of student citizenships, and the identification of problems related to student governments.

Several problems were as follows:

1. Lack of interest and general apathy toward student involvement in college government.

2. Confusion of student leaders pertaining to the placement of authority and responsibility.

3. Determining and interpreting the wishes and concerns of the student body on an issue.

4. Inadequately financed student governments.

5. What determines the fine line between administrative authority and student power?

Most junior college student governing bodies have in the past and presently are involved in activities, such as, preparing rules for accepted student dress and conduct, furnishing and decorating the student centers, planning social activities, and working in concert with the school administration on policies affecting student life. The fact that the president of the student senate, at several colleges, serves on all major college committees including faculty, administration, and board representatives indicates a perceived trend toward more concern for student desires and opinions in creating a student centered institution.

Questions from the floor generally appertained to the specifics of "How do you do this? or that?" variety, i.e. "How do you arrange a time to meet that is convenient for all?" "Should the president, and perhaps other officers, receive a stipend or scholarships or credit for carrying out the responsibilities of the office?" "How do you revise a constitution?" "How many evening students become more involved in student government?", etc.

The consensus was that the channels of communication must be kept wide open between faculty, administration, and student body if satisfactory solutions to common problems are to be found!

Uniform Accounting Manual . . . . Seminar Session

Chairman . . . . Charles Zipprodt
Board Member, Parkland College

Panel

Robert T. Dale Dean of Business Management, Triton College	Howard D. Sims Dean of Business Services, Waubonsee Community College

Robert Edison
Controller, Sauk Valley College

Recorder . . . . John Bettag, Jr.
Bursar, Danville Junior College

The Uniform Accounting Manual Panel devoted much of its time to the discussion of the proposed Uniform Accounting Manual in general and the Chart of Accounts portion thereof in particular. It was the consensus of those in attendance that the Chart of Accounts be finalized at the earliest possible date in order that any junior college that wished could use it as a guide in accounting during the 1968-69 fiscal year.

A second area of concentration was the discussion of accrual accounting. The panel reported on the work of the Uniform Accounting Manual Committee on this topic to the effect that each junior college will be expected to use accrual accounting. In this context accrual accounting means that expenditures are to be recorded when they have been reduced to a legal or contractual right or obligation. Such an entry would be made at the time an invoice for payment is received in the business office.

Although recommended, it is not expected that each college would be expected to encumber funds when a purchase order is issued. Further, accrual accounting is intended to mean that major receipts such as district taxes, state apportionment and federal grants shall be recorded when they have been reduced to an obligation for a second party to pay.

Unit Cost Study . . . . Seminar Session

Chairman . . . . Ken Smith
Board Member, Kishwaukee College

Panel

Wayne Stumph Dean of Business Affairs, Belleville Junior College	Phillip Luhmann Assistant to Vice Chancellor, Chicago City College

Joseph Ondrus
Business Manager, Morton Junior College

Recorder . . . . Leon H. Perley
Business Manager, Illinois Central College

UNIT COST STUDY

Leon H. Perley, Recorder

Mr. Stumph opened the meeting with a brief historical introduction of the Unit Cost Study Movement. He reviewed the purposes of the cost study as:

1. To evaluate and refine the basis for state support to public junior colleges. Recognizing that each junior college is striving to meet the needs of the community that it serves as these needs are perceived by the local authorities and that such needs will vary leading to differences in curriculum and hence costs, an instrument to assess such differences in funding requirements is highly desirable.

2. For improved internal management as an aid to local planning and evaluation of alternatives in light of factual limitations of resources.

3. To assess, if possible, the comparative costs and benefits attached to function, curriculum, discipline and course as an aid to state-wide planning.

Mr. Stumph stated that it is necessary to demonstrate to the legislature our needs as community colleges. Several points were developed by Mr. Stumph in relating the value of accurate unit cost data. Among these were:

1. It presents information regarding the cost of a new program to provide for better decision-making.

2. It can provide the basis for determining how good the current $11.50 per semester hour is.

3. It can provide a basis for demonstrating the need for more dollars in vocational-technical programs.

4. It can provide a basis for determining how much more is needed for vocational-technical than for other programs.

Mr. Luhmann briefly presented how the Chicago City College collected data for budgets and unit costs. Chicago combines data needed for budget preparation with that needed for unit costs analysis in an attempt to avoid duplication of efforts and provide a more efficient method of data collection. The deans of the various colleges maintain the responsibility of allocating time and classifying courses in proper categories.

Question: What happens if summer school spans two fiscal years?

Answer: Charge costs to prior fiscal year.

Question: Do you recommend spreading overhead dollar for dollar or by credit hour?

Answer: I prefer indirect allocation on a basis of credit hour.

Question: Does the cost study cover private institutions?

Answer: No.

Question: Will there be a compilation available to be used as guidelines for individual junior college districts?

Answer: Yes, it can be a real tool for administrators.

Question: Do you think we will get a change on Page 4 of the Unit Cost Study Manual? (This question refers to Item F - Administration on Page 4 of Unit Cost Study Manual and impinges upon an interpretation of Administration.)

Answer: Probably. Item F on Page 4 could be changed to "academic administration" and remove the word "general". In addition we are suggesting that we add such salary costs to be allocated on Schedule 2 as Item D as explained on Page 22.

Question: Is there any way you can notify everyone before changes are made?

Answer: We can make a recommendation from this group to the State Junior College Board. (A brief discussion followed this question concerning the feasibility of adding the Unit Cost Study to the December 15 agenda in Springfield and to hold any questions until that time.)

Question: Are we going to amortize capital outlay costs?

Answer: Only in the Building Fund.

The group in attendance at the Unit Cost Study Meeting voted unanimously to go on record opposing comparisons between junior colleges and other colleges. The resolution was stated as follows: "We will not use the results of our unit costs study to compare costs of junior college programs to other colleges. and universities." It was further recommended that extreme care be taken in the use of any data of the unit cost study.

University Retirement System . . . . Seminar Session

Chairman . . . . Ralph E. Francis
Board of Education, Kankakee Community College

Speaker. . . . . Edward S. Gibala
Executive Director, State Universities Retirement System

Recorder . . . . Frank A. Banks
President, Chicago City College Faculty Council

UNIVERSITY RETIREMENT SYSTEM

Frank A. Banks, Recorder

Mr. Wayne Zumwalt, Rock Valley College, made the following observation: "The small number of participants in this seminar is an indication of the youth of our faculty."

Mrs. Fraser introduced our speaker, Mr. Edward S. Gibala, Secretary and Executive Director of the State Universities Retirement System. The following is an outline of Mr. Gibala's address:

I. Uses of the State Universities Retirement System

  A. Recruitment

    1. Much of the recruitment of new teachers in Illinois is from outside the state.

    2. A five year resting period provision to make one eligible for pension at retirement age was proposed and finally approved in 1966. In 1949 the resting period was twenty years. It was reduced to fifteen years and then to ten years prior to the approval of the five year period which was approved in 1966.

  B. Pension Credit for other Public Employees.

    1. The current procedure which allows up to ten years credit by the following formula was approved in 1965: 12% x beginning salary in Illinois x years of other public employment + interest at 4% with the limitation that the employee does not pay more than one-half the value of additional pension provided by this service.

    2. Limit passed in 1967.

      a. The employee pays no more than one-half the value of his pension; the state pays the balance.

      b. The employee's share probably will drop in the future. The state now matches the employee's contribution dollar for dollar.

C. Effect upon employees at time of Class I status

1. Several downstate employees lost pension rights.

2. Applies only to those employed at the time of initial Class I status (July 1, 1966).

   Exception:, Those persons (teachers, clerical, etc.) employed by the Chicago Board of Education who were hired by the Chicago City College within six months after the date of Class I (July 1, 1966).

II. Legislation Passed in 1967

A. Senate Bill 515 - The Junior College Bill

1. The most important pension legislation since 1941, the date of inception of the system.

2. The state takes over the entire cost of pension. This action removes an inequity made in 1965.

3. Pension financing was overlooked in 1965; it was corrected in 1967. Reimbursement vouchers are now being processed to repay Junior College Districts for their pension contributions.

4. All State University and Junior College Boards are to have their share of employees' pension paid at cost, 10.09% of their total payrolls in addition to the employee's 7%. When the state paid only 3.75%, the deficit increased each year. The current 10.09% will stabilize the deficit at the current level and not allow it to increase.

   Many other states (i.e., New York, Pennsylvania, etc.) are paying into their pension funds on a current basis with a built-in means for eliminating deficit within approximately twenty-five years.

The chairman thanked Mr. Gibala for his enlightening presentation. Mr. Gibala then entertained questions from the floor.

Q-1 How does our pension system compare with the pension systems of other states?

A-1 Our pension system is one of the best in the nation. Indiana and Purdue Universities, however, have a better system. Their system is non-contributory on the part of the employee; The Universities pay the total cost, 15%. Previously, the Universities paid 10%, the employee 5%.

Q-2 How does the pension system of Illinois compare with that of California?

A-2 Illinois compares favorably.

Q-3 How does the temporary disability program in Illinois compare with those of other states?

A-3 The temporary disability program in Illinois is one of the most liberal in the country. In order to quality for disability benefits from the Retirement System, the disabled employee must have at least two years of service credits in the Retirement System if disability results from illness. No minimum service is required if disability results from an accident. The Retirement System disability benefits will be paid until the employee receives 50 per cent of his total earnings while a member of the Retirement System. Most other states require ten years of service for the employee to qualify; i.e., maximum benefits are usually about 12 1/2 percent of the average salary during the high five years.

Q-4 Can one take a temporary disability benefit?

A-4 Yes. Downstate up to age 55 under the State Teachers System; up to compulsory retirement age under the State University System. This provision is one of the best of its kind.

Q-5 Doesn't this system favor the male?

A-5 Yes, as does Federal Social Security.

Q-6 Is there a reciprocal agreement between downstate systems and the State Universities Retirement System?

A-6 Yes. There is no limit. All service benefits under old downstate systems are calculated.

Q-7 Must one be in Class I to gain pension benefits?

A-7 No.

Q-8 What if your college is still under Class II?

A-8-a You will remain in the pension plan under the State Teachers Retirement Plan.

A-8-b You must teach in the University System for five years in order to qualify for benefits under the University System.

A-8-c A person automatically goes under the State University System when his District becomes Class I.

Q-9 What are the regulations regarding other types of public employment, for instance, military service?

A-9 A teacher who enters military service and returns to teaching will receive full credit for military service under the State Universities Retirement System.

Mr. Gibala reported that three pension bills were submitted and passed by the Illinois General Assembly during 1967. One was proposed by state employees, one by state teachers and one by the General Assembly. The first two were vetoed by the Governor; the last was signed into law. He further reported on proposed pension legislation for 1969.

OUTLOOK FOR 1969 LEGISLATION

1. Automatic Annual Increase in Pensions

The Employees Advisory Committee to the State Universities Retirement System Board has approved of proposed legislation which would increase the base pension 1 1/2% each year after retirement. Each member would contribute 1/2% of salary to help finance this proposal and the state would pay the balance of the cost. The additional contribution by the member would be refunded to him if he withdraws his funds from the system or does not qualify for the increase in pension.

The Illinois Public Employees Pension Laws Commission has gone on record as favoring the 1 1/2% automatic annual increase in pensions, and several Illinois retirement systems (including the General Assembly System) now provide such increase.

This increase of 1 1/2% is to cover inflation. Some distinguished teachers who retired in the "40's" are drawing pensions of $200.00 to $250.00 per month.

Mr. Gibala called attention to a defect in the Chicago Public Schools Pension System. It includes the 1 1/2% "cost of living" clause. The employee pays 1/2%. However, the employee forfeits his 1/2% if he withdraws from the system. This forfeiture clause is included in the General Assembly Bill passed in 1967.

2. Tax-Sheltered Annuities

Mr. Gibala reported that a variable annuity plan is being pushed. Such a plan has not been approved by the state Legislature after eight years.

Two pages of a bulletin from the State Universities Retirement System entitled "Legislation and Administration" were distributed at this meeting and were devoted to this topic.

3. Revision in Formula for Determining the Retirement Allowance

The current retirement formula of 1 2/3% x years of service x average earnings during the high five consecutive years provides generous benefits for a person who continues service in Illinois for a long period or who performs his service in Illinois during the latter part of his working lifetime. However, it does not provide a fair benefit to the short-term employee who serves the State of Illinois during the early part of his working lifetime. Consequently, the five-year vesting provision which was approved in 1967 is of little or no value to the younger faculty and staff members who leave the State after meeting this requirement.

The Employees Advisory Committee to the Retirement Board has recommended that the 1 2/3% formula be retained, but that the Law be changed so that the portion of the retirement benefits provided by employer contributions shall be at least 1.4 times the retirement benefit provided by the employees' contributions and interest credits. The current employee retirement contribution is 6% of earnings. Thus, this change would provide a retirement allowance at least equal to that which could be purchased by total contributions of 14.4% of earnings, plus interest accumulations.

A similar proposal was rejected by the Illinois Public Employees Pension Laws Commission in 1966.

The current retirement formula discussed in paragraph one is poor for a faculty or staff member going from Illinois to another state because generally there is no reciprocity. A person doesn't lose much if he returns to Illinois. One cannot receive duplicate credit in two states for the same period of service. Some states and systems have a reciprocity provision: (1) Alabama - 16 years; (2) Illinois - 15 years; (3) Chicago - 20 years. However, under the Chicago system, a person with less than 20 years of service who retires before age 55 receives no benefits.

Mr. Gibala stated that he believes that the current retirement formula of 1 2/3% x years of service x average earnings during the high five consecutive years is a very sound plan for career employees. The high five includes summer and overtime work. Full credit is given for sabbatical leaves in the aforementioned formula based upon the person's salary at the time the sabbatical leave begins.

Leave without pay creates quite a problem. Downstate a person is granted one year during his entire length of service. Throughout the rest of the state a person may receive three years' credit within each ten year period. The faculty member should take the initiative in notifying the Pension Board of change of status within thirty days following the beginning date of leave. Mr. Gibala stated further that during such a leave the person has nothing to lose if he pays into the pension plan; he has everything to gain.

Q-10 Why is there discrimination against females in regard to survivors benefits?

A-10 Males usually have more dependents than females.

Mrs. Eve Gersbacher of Southeastern Illinois College at Harrisburg challenged the infraction of the Federal Civil Rights Act against the states in regard to pension laws. She stated that the Federal Civil Service Law is most discriminatory against females. She advocated some kind of legal action through her daughter, Edith Green, an attorney who has an interest in legislation which discriminates against females.

ALL-STATE JUNIOR COLLEGE BAND

The first Illinois All-State Junior College Honor Band received a standing ovation at the fall conference sponsored by the Illinois Association of Community and Junior Colleges and the Illinois Junior College Board.

The 70-member band was made up of students from 13 junior colleges in Illinois, each of whom had rehearsed at his home school before meeting in Peoria for the first public performance of the band, organized this year.

Roger A. Perley, assistant professor of music at Black Hawk College, Moline, was the director of the band. James Mack, chairman of the music department, Loop Campus, Chicago City College, was the associate director.

Perley conducted the band in "Rondo Marziale" by Arthur Frackenpohl and "Variants on a Mediaeval Tune" by Norman Dello Joio. Mack conducted "Danza Lucumi" by Ernesto Lecuona and "Andante and Toccata" by Vaclav Nelhybel.

Al Kindig of Thornton Junior College, Harvey, handled arrangements for overnight accommodations for the band members. James Pleasant of Illinois Central College, Peoria, obtained the necessary chairs, stands and equipment for the band's performances and worked with James Broman, executive secretary of the IACJC to obtain rehearsal halls. The band held afternoon and evening rehearsals on November 16 and a morning rehearsal November 17 prior to the performances.

The outstanding music students who were members of the band were:

Black Hawk College (Roger A. Perley, music director) - Patricia Calzia, Clarinet; Robert Hammond, French Horn; Mark Kingsbury, Alto Clarinet; George Maloich, Tenor Saxophone; Robert McGriff, Tenor Trombone; Bethel Millen, Baritone Saxophone; Nancy Nichols, Flute; Richard Nicola, Percussion; Joseph Wesenberg, Bass Clarinet.

Elgin Junior College (Joseph Ciontea, music director) - Kraig Baum, Tuba; Joyce Brannon, Cornet; Darlene Myers, Oboe.

William Rainey Harper Junior College (George Makas, music director) - Eric Nilsen, String Bass; Bill Doolan, French Horn; Robert Goben, Trombone; Craig S. Fry, Tenor Sax; Dennis Runyon, Percussion.

Highland Community College (Art Castetter, music director) - Linda Hall, French Horn; Cathy Smith, Saxophone; Gary Colbert, Trumpet.

Joliet Junior College (Hal Dellinger, music director) - Tom Blarent, Bb Clarinet; Bob Adams, Bb Trumpet; Bill Geing, Bb Trumpet, James Lewis, Bb Clarinet; Noyer Mumaugh, Tuba.

Morton Junior College (Robert Dvorak, music director) - Mark Caliendo, Trumpet; Frank Kutinac, Contra-Bass Clarinet; Durwood Schuylaman, Oboe.

Loop Branch - Chicago City College (James Mack, music director) - William Gilardon, Trombone; Drake G. Kerry, Clarinet; Charles Forester, Clarinet; William Thissen, Cornet; Michael Cosentino, Alto; Kaye Clements, Flute, Picc.; Michael Wood, Trumpet; Ziedon is Ozers, Clarinet; Stanley Drucher, Clarinet; Michael Watkins, Eb Tuba.

Rock Valley College (Ruben Johnson, music director) - W. Charles Pierce, Baritone; Thomas W. Erickson, Baritone Sax; Wendell Thompson, Trombone; Nellie V. Berg, Flute; Rick James, Bassoon; Dave Johanson, Alto Sax; Cheryl Hammond, Clarinet; Sue Turner, Clarinet.

Sauk Valley College (Max Grunnup, music director) - Rick Kerley, Percussion.

Southeastern Junior College (Curtis Burklow, music director) - Cynthia Prather, Clarinet; Curtis Healy, French Horn; Greg Tanner, Eb Bass Sax; Jo Anna Fowler, Alto Sax; Joe Pearson, Cornet; Jamie Reeve, Baritone.

Thornton Junior College (Al Kindig, music director) - John Gill, Trombone; Linda Puckett, Flute; Sandy Palm, Flute; Barb Frederick, Baritone Horn; Lois Vander Wall, French Horn; Kathleen Chicke, Clarinet, Terry Tritt, Clarinet.

Waubonsee College (D. Wickiser, music director) - Dave Scafe, Percussion; Joyce Walker, French Horn; Larry McCabe, Trombone.

Wilson Branch - Chicago City College (Robert Haddick, music director) - Jack Simon, Clarinet; Irving Barnette, Bass Clarinet; Bonnie Herold, Flute; Dan Greenock, Tuba.

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